

### Indiana Department of Environmental Management

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Frank O'Bannon Governor

Lori F. Kaplan Commissioner 100 North Senate Avenue P. O. Box 6015 Indianapolis, Indiana 46206-6015 (317) 232-8603 (800) 451-6027 www.IN.gov/idem

Mr. Jay King Plant Manager U.S. Gypsum Company 301 Riley Road East Chicago, IN 46312

Re: **089-16805** 

First Significant Permit Modification to Part 70 No.: **T 089-7532-00333** 

Dear Mr. King:

U.S. Gypsum Company was issued a permit on July 6, 1999 for a stationary gypsum wallboard and gypsum products manufacturing plant. A letter requesting changes to this permit was received on September 10, 2002. Pursuant to the provisions of 326 IAC 2-7-12 a significant permit modification to this permit is hereby approved as described in the attached Technical Support Document.

The modification consists of a reconfiguration of the stucco manufacturing process. A new calcining kettle, known as #1, three (3) natural gas-fired burners for calcining kettle #1, and associated stucco handling equipment will be installed.

The changes in the Part 70 Operating Permit are documented in the Technical Support Document. All other conditions of the permit shall remain unchanged and in effect. For your convenience, the entire Title V Operating Permit, with all modifications and/or amendments made to it, is being provided.

This decision is subject to the Indiana Administrative Orders and Procedures Act - IC 4-21.5-3-5. If you have any questions on this matter contact Patrick Brennan, c/o OAQ, 100 North Senate Avenue, P.O. Box 6015, Indianapolis, Indiana, 46206-6015, at 631-691-3395, ext. 21, or in Indiana at 1-800-451-6027 (ext 631-691-3395).

Sincerely,

Paul Dubenetzky, Chief Permits Branch Office of Air Quality

PTB/MES

cc: File - Lake County

U.S. EPA, Region V

Lake County Health Department

Air Compliance Section Inspector - Richard Massoels

Compliance Branch - Karen Nowak

Administrative and Development - Lisa Lawrence Technical Support and Modeling - Michele Boner



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# PART 70 OPERATING PERMIT OFFICE OF AIR QUALITY

### United States Gypsum Company 301 Riley Road East Chicago, Indiana 46312

(herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the source described in Section A (Source Summary) of this permit.

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-7 and 326 IAC 2-1-3.2 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

Operation Permit No.: T089-7532-00333

Issued by:
Janet G. McCabe, Assistant Commissioner
Office of Air Quality

Issuance Date: July 6, 1999
Expiration Date: July 6, 2004

1<sup>st</sup> Significant Permit Modification No. 089-11767-00333 Issuance Date: November 13, 2002

1<sup>st</sup> Significant Source Modification No. 089-16064-00333 Issuance Date:

Second Significant Permit Modification No.:

SPM 089-16805-00333

Issued by:
Paul Dubenetzky, Branch Chief
Office of Air Quality

Sections Affected: A.2, D.3

Issuance Date:

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United States Gypsum Company East Chicago, Indiana Permit Reviewer: Bryan Sheets Page 6 of 67 OP No. T089-7532-00333

### SECTION A

### **SOURCE SUMMARY**

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ). The information describing the source contained in conditions A.1 through A.3 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

### A.1 General Information [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)]

The Permittee owns and operates a stationary gypsum wallboard and gypsum products manufacturing plant.

Responsible Official: Jay L. King, Plant Manager

Source Address: 301 Riley Road, East Chicago, Indiana 46312 Mailing Address: 301 Riley Road, East Chicago, Indiana 46312

SIC Code: 3275 County Location: Lake

County Status: Nonattainment for ozone, PM<sub>10</sub> and SO<sub>2</sub>

Attainment area for all other criteria pollutants

Source Status: Part 70 Permit Program

Major Source, under PSD and Emission Offset Rules;

# A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)] [326 IAC 2-7-5(15)]

This stationary source consists of the following emission units and pollution control devices:

Raw material handling and storage, consisting of the following equipment:

- (a) One (1) pneumatic rail car unloading facility, with a maximum throughput of 24,000 pounds per hour, used for limestone, hydrocal, and mica, with particulate matter emissions controlled by each individual baghouse identified as JBH-11, JBH-12 and JBH-13, and exhausting through each respective stack identified as J-11, J-12 and J-13 respectively.
- (b) One (1) pneumatic truck unloading facility, with a maximum throughput of 22,000 pounds per hour, used for perlite, with particulate matter emissions controlled by one (1) baghouse, identified as JBH-16, and exhausting through one (1) stack, identified as J-16.
- (c) One (1) limestone storage silo, with a maximum capacity of 330 tons, with particulate matter emissions controlled by one (1) baghouse, identified as JBH-11, and exhausting through one (1) stack, identified as J-11.
- (d) One (1) hydrocal storage silo, with a maximum capacity of 140 tons, with particulate matter emissions controlled by one (1) baghouse, identified as JBH-12, and exhausting through one (1) stack, identified as J-12.
- (e) One (1) mica storage silo, with a maximum capacity of 60 tons, with particulate matter emissions controlled by one (1) baghouse, identified as JBH-13, and exhausting through one (1) stack, identified as J-13.
- (f) One (1) perlite storage silo, with a maximum capacity of 250 tons, with particulate matter emissions controlled by one (1) baghouse, identified as JBH-16, and exhausting through one (1) stack, identified as J-16.

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- (g) One (1) enclosed rock shed, with a maximum capacity of 125,000 tons.
- (h) One (1) synthetic gypsum stockpile, identified as F-1, with particulate matter emissions exhausting directly to the atmosphere.

A landplaster production process, consisting of the following equipment:

- (a) A conveying system, consisting of belt and screw conveyors, with particulate matter emissions controlled by partial or total enclosure, and exhausting to associated processes or directly to the atmosphere. Some portions of the conveyor system are controlled by one (1) baghouse, identified as MBH-2, and exhausting through one (1) stack, identified as M-2.
- (b) One (1) dryer mill bin #1, with a maximum capacity of 60 tons and a throughput of 40 tons per hour, with particulate matter emissions uncontrolled, and exhausting directly to the atmosphere.
- (c) One (1) dryer mill bin #2, with a maximum capacity of 60 tons and a throughput of 40 tons per hour, with particulate matter emissions uncontrolled, and exhausting directly to the atmosphere.
- (d) One (1) dryer mill #1, with a maximum throughput of 35 tons per hour, with particulate matter emissions controlled by one (1) baghouse, identified as MBH-8, and exhausting through one (1) stack, identified as M-8.
- (e) One (1) natural gas-fired burner for the dryer mill #1, with a heat input capacity of 20 MMBtu per hour, and exhausting through one (1) stack, identified as M-8.
- (f) One (1) screening station #1, with a maximum throughput of 35 tons per hour, with particulate matter emissions controlled by one (1) baghouse, identified as MBH-8, and exhausting through one (1) stack, identified as M-8.
- (g) One (1) dryer mill #2, with a maximum throughput of 35 tons per hour, with particulate matter emissions controlled by one (1) baghouse, identified as MBH-12, and exhausting through one (1) stack, identified as M-12.
- (h) One (1) natural gas-fired burner for the dryer mill #2, with a heat input capacity of 20 MMBtu per hour, and exhausting through one (1) stack, identified as M-12.
- (i) One (1) screening station #2, with a maximum throughput of 35 tons per hour, with particulate matter emissions controlled by one (1) baghouse identified as MBH-12, and exhausting through one (1) stack, identified as M-12.
- (j) One (1) mill landplaster bin, with a maximum capacity of 20 tons, with particulate matter controlled by one (1) baghouse, identified as MBH-19, and exhausting through one stack, identified as M-19.

A stucco production process, consisting of the following equipment:

- (a) Two (2) kettle feed bins, known as kettle feed bin #1 and kettle feed bin #2, each with a maximum capacity of 60 tons, with particulate matter emissions controlled by two (2) baghouses, identified as MBH-20 and MBH-21, and exhausting through one (1) stack, identified as M-20.
- (b) One (1) calcining kettle, known as calcining kettle #1, with a maximum throughput of

- thirty (30) tons per hour, with particulate emissions controlled by one (1) baghouse, identified as MBH-22, and exhausting through one (1) stack, identified as M-22.
- (c) One (1) calcining kettle, known as calcining kettle #2, with a maximum throughput of 45 tons per hour, with particulate matter emissions controlled by one (1) baghouse, identified as MBH-16, and exhausting through one (1) stack, identified as M-16.
- (d) Three (3) natural gas-fired burners for calcining kettle #1, each with a heat input capacity of 5 MMBtu per hour, and exhausting through one (1) stack, identified as M-21.
- (e) Six (6) natural gas-fired burners for the calcining kettle #2, each with a heat input capacity of 5 MMBtu per hour, and exhausting through one (1) stack, identified as M-14.
- (f) One (1) kettle feed bin, known as kettle feed bin #3, with a maximum capacity of 60 tons, with particulate matter emissions controlled by one (1) baghouse, identified as MBH-8, and exhausting through one (1) stack, identified as M-8.
- (g) One (1) calcining kettle, known as calcining kettle #3, with a maximum throughput of 30 tons per hour, with particulate matter emissions controlled by one (1) baghouse, identified as MBH-1, and exhausting through one (1) stack, identified as M-1.
- (h) One (1) natural-gas fired burner for the calcining kettle #3, with a heat input capacity of 15 MMBtu per hour, and exhausting through one (1) stack, identified as M-6.
- (i) One (1) hot pit, known as hot pit #3, with a maximum throughput of 30 tons per hour, with particulate matter emissions controlled by one (1) baghouse, identified as MBH-1, and exhausting through one (1) stack, identified as M-1.
- (j) Miscellaneous stucco handling equipment, including one (1) #4 stucco elevator, one (1) #17 screw, and one (1) #17A screw, with a maximum throughput of 70 tons per hour, with particulate matter emissions controlled by partial or total enclosure, and exhausting to associated processes or directly to the atmosphere. Some portions of the stucco handling system are controlled by one (1) baghouse, identified as MBH-2, and exhausting through one (1) stack, identified as M-2.
- (k) Stucco storage equipment, including one (1) #49 screw, and one (1) #47 screw, with a maximum capacity of seventy (70) tons per hour, and three stucco storage bins, known as #1, #2 and #3, each with a capacity of 175 tons, with particulate emissions controlled by one (1) baghouse, identified as MBH-24, and exhausting through one (1) stack, identified as M-23.
- (I) Stucco storage equipment, including one (1) #1 elevator and one (1) #27 screw, with a maximum capacity of seventy (70) tons per hour, and three (3) stucco storage bins, known as #4, #5 and #6, each with a capacity of 175 tons, with particulate emissions controlled by one (1) baghouse, identified as MBH-23, and exhausting through one (1) stack, identified as M-23.
- (m) One (1) stucco storage bin, with a maximum capacity of 50 tons, with particulate matter controlled by one (1) baghouse, identified as MBH-2, and exhausting through one (1) stack, identified as M-2.

A gypsum wallboard manufacturing line, consisting of the following equipment:

(a) One (1) stucco storage bin, with a maximum capacity of 1200 tons, with particulate matter

- controlled by one (1) bin vent, identified as BBH-11, and exhausting through one (1) stack, identified as B-11.
- (b) One (1) stucco surge bin with hopper, with a maximum capacity of 2 tons, with particulate matter controlled by one (1) baghouse, identified as BBH-13, and exhausting through one (1) stack, identified as B-13.
- (c) One (1) (HRA) landplaster feed bin, with a maximum capacity of 20 tons, with particulate matter emissions controlled by one (1) bin vent, identified as BBH-12, and exhausting inside the building through one (1) stack, identified as B-12.
- (d) One (1) HRA mill additive bin (sugar), with a maximum capacity of 10 cubic feet, feeding the HRA ball mill, with particulate matter emissions uncontrolled, and exhausting inside the building.
- (e) One (1) HRA ball mill, with a maximum throughput of 2400 pounds per hour, with particulate matter controlled by one (1) baghouse, identified as BBH-18, and exhausting inside the building through one (1) stack, identified as B-18.
- (f) One (1) HRA bin, with a maximum capacity of 3 tons, with particulate matter controlled by one (1) baghouse, identified as BBH-13, and exhausting through one (1) stack, identified as B-13.
- (g) One (1) additive refill bin (starch), with a maximum capacity of 3 tons, with particulate matter controlled by one (1) baghouse, identified as BBH-16, and exhausting inside the building through one (1) stack, identified as B-16.
- (h) One (1) additive refill receiver (vermiculite), controlled by one (1) vacuum receiver, identified as BVH-17, and exhausting inside the building through one (1) stack, identified as B-17.
- (i) Two (2) additive bulk storage bins (starch and vermiculite), each with a maximum capacity of 75 tons, with particulate matter emissions controlled by two (2) separate baghouses, identified as BBH-14 (starch) and BBH-15 (vermiculite), and all exhausting to two (2) respective stacks, identified as B-14 and B-15.
- (j) One (1) additive surge bin (vermiculite), with a maximum capacity of 5 tons, with particulate matter controlled by one (1) baghouse, identified as BBH-13, and exhausting through one (1) stack, identified as B-13.
- (k) One (1) glass fiber additive bin, with a maximum capacity of six (6) cubic feet, with particulate matter emissions uncontrolled, and exhausting inside the building.
- (I) One (1) paper fiber mill with cyclone separator, with a maximum throughput of 900 pounds per hour, with particulate matter emissions controlled by one (1) baghouse, identified as BBH-13, and exhausting through one (1) stack, identified as B-13.
- (m) One (1) mixing screw conveyor, with a maximum throughput of 60 tons per hour, with particulate matter emissions controlled by one (1) baghouse, identified as BBH-13, and exhausting through one (1) stack, identified as B-13.
- (n) One (1) natural gas-fired gauging water heater, with a heat input capacity of 3.5 MMBtu per hour, and exhausting through one (1) stack, identified as B-19.
- (o) One (1) wet mixer, with particulate matter emissions controlled by one (1) baghouse,

- identified as BBH-13, and exhausting through one (1) stack, identified as B-13.
- (p) One (1) wet zone kiln natural gas-fired burner, with a heat input capacity of 67 MMBtu per hour, and exhausting through one (1) stack, identified as B-20.
- (q) One (1) dry zone kiln natural gas-fired burner, with a heat input capacity of 67 MMBtu per hour, and exhausting through one (1) stack, identified as B-20.
- (r) One (1) wet end seal natural gas-fired burner, with a heat input capacity of 2.5 MMBtu per hour, and exhausting through one (1) stack, identified as B-20.
- (s) One (1) dry end seal natural gas-fired burner, with a heat input capacity of 2.5 MMBtu per hour, and exhausting through one (1) stack, identified as B-20.
- (t) One (1) wallboard drying kiln, with a maximum throughput of 78,000 square feet of wallboard per hour, and exhausting through one (1) main stack, identified as B-20.
- (u) One (1) end saw, with a maximum throughput of 78,000 square feet of wallboard per hour, with particulate matter emissions controlled by one (1) baghouse, identified as BBH-25, and exhausting through one (1) stack, identified as B-25.
- (v) One (1) waste reclaim shredder, with a maximum throughput of 50 tons per hour, with particulate matter controlled by two (2) baghouses, identified as WRBH-1 and WRBH-2, and exhausting through two (2) stacks, identified as WR-1 and WR-2, respectively.
- (w) One (1) existing cut-back saw, with particulate matter controlled by one (1) baghouse, identified as BBH-25, and exhausting through one (1) stack, identified as B-25.

A joint treatment process, consisting of the following equipment:

- (a) A pneumatic conveying system from the bulk storage silos to the scale hoppers, with particulate matter emissions controlled by three (3) baghouses, identified as JBH-11, JBH-12 and JBH-13, and exhausting through three (3) stacks, identified as J-11, J-12 and J-13, respectively.
- (b) Four (4) scale hoppers, with particulate matter emissions uncontrolled, and exhausting inside the building.
- (c) A ready-mix line, consisting of the following equipment:
  - (1) Two (2) holding hoppers, each with a maximum throughput of 5 tons per hour, with particulate matter emissions controlled by two (2) baghouses, identified as JBH-1 and JBH-2, and each exhausting through two (2) stacks, identified as J-1 and J-2, respectively.
  - (2) One (1) dry additives bag dump, with a maximum throughput of 1176 pounds per hour, with particulate matter controlled by three (3) baghouses, identified as JBH-1, JBH-2 and JVH-3, and exhausting through three (3) stacks, identified as J-1, J-2 and J-3, respectively.
  - (3) Two (2) wet mixers, each with a maximum throughput of 7.25 tons per hour, and exhausting inside the building.
- (d) A dry joint compound line, consisting of the following equipment:

- (1) One (1) dry additives bag dump, with a maximum throughput of 600 pounds per hour, with particulate matter emissions controlled by one (1) baghouse, identified as JVH-8, and exhausting through one (1) stack, identified as J-8.
- (2) One (1) reclaim screw conveyor, with a maximum throughput of 1,184 pounds per hour, with particulate matter emissions controlled by one (1) baghouse, identified as JBH-7, and exhausting through one (1) stack, identified as J-7.
- One (1) dry joint mixer, with a maximum throughput of 5,678 pounds per hour, with particulate matter emissions controlled by one (1) baghouse, identified as JBH-7, and exhausting through one (1) stack, identified as J-7.
- (4) One (1) packing machine, with a maximum throughput of 5,100 pounds per hour, with particulate matter emissions controlled by one (1) baghouse, identified as JBH-14, and exhausting inside the building through stack J-14.
- (e) A dry texture paint line, consisting of the following equipment:
  - (1) One (1) dry additives bag dump, with a maximum throughput of 390 pounds per hour, with particulate matter emissions controlled by one (1) baghouse, identified as JBH-5, and exhausting through one (1) stack, identified as J-5.
  - (2) One (1) reclaim screw conveyor, with maximum throughput of 502 pounds per hour, and a polystyrene screw conveyor, with a maximum capacity of 75 pounds per hour, with particulate matter emissions controlled by one (1) baghouse, identified as JBH-4, and exhausting through one (1) stack, identified as J-4.
  - One (1) dry texture paint mixer, with a maximum throughput of 4650 pounds per hour, with particulate matter emissions controlled by one (1) baghouse, identified as JBH-4, and exhausting through one (1) stack, identified as J-4.
  - (4) One (1) packing machine, with a maximum throughput of 4650 pounds per hour, with particulate matter emissions controlled by one (1) baghouse, identified as JBH-4, and exhausting through one (1) stack, identified as J-4.
  - One (1) dry paint weigh station, with particulate matter emissions controlled by one (1) baghouse, identified as JBH-15, and exhausting through one (1) stack, identified as J-15.
  - (6) One (1) dry additive conveying system, with a maximum throughput of 400 pounds per hour, with particulate emissions controlled by one (1) vacuum receiver, identified as JVH-6, and exhausting through one (1) stack, identified as J-6.
- A.3 Specifically Regulated Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)]

This stationary source also includes the following insignificant activities which are specifically regulated, as defined in 326 IAC 2-7-1(21):

- (a) Degreasing operations that do not exceed 145 gallons per 12 months, except if subject to 326 IAC 20-6.
- (b) The following equipment related to manufacturing activities not resulting in the emission of HAPs: brazing equipment, cutting torches, soldering equipment, welding equipment.

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- (c) One (1) landplaster baler, with particulate matter emissions uncontrolled, and exhausting directly to the atmosphere.
- (d) A polypropylene bag grinding process, consisting of the following equipment:
  - (1) A bag storage and conveying system, with two (2) bins and two (2) screw conveyors, with negligible emissions, and exhausting inside the building.
  - Two (2) polypropylene bags grinding machines, each with a maximum throughput of 20 pounds per hour, with particulate matter emissions controlled by partial enclosure, and exhausted to the ground polypropylene bins.
  - (3) Three (3) ground polypropylene bins with screens, with a combined maximum capacity of 360 cubic feet, with particulate matter emissions uncontrolled, and exhausting inside the building.
  - (4) One (1) weigh feeder, with a maximum throughput of 47 pounds per hour, with particulate matter emissions uncontrolled, and exhausting inside the building.

### A.4 Part 70 Permit Applicability [326 IAC 2-7-2]

This stationary source is required to have a Part 70 permit by 326 IAC 2-7-2 (Applicability) because:

- (a) It is a major source, as defined in 326 IAC 2-7-1(22);
- (b) It is a source in a source category designated by the United States Environmental Protection Agency (U.S. EPA) under 40 CFR 70.3 (Part 70 Applicability).

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### **SECTION B**

### **GENERAL CONDITIONS**

### B.1 Permit No Defense [326 IAC 2-1-10] [IC 13]

- (a) Indiana statutes from IC 13 and rules from 326 IAC, quoted in conditions in this permit, are those applicable at the time the permit was issued. The issuance or possession of this permit shall not alone constitute a defense against an alleged violation of any law, regulation or standard, except for the requirement to obtain a Part 70 permit under 326 IAC 2-7.
- (b) This prohibition shall not apply to alleged violations of applicable requirements for which the Commissioner has granted a permit shield in accordance with 326 IAC 2-1-3.2 or 326 IAC 2-7-15, as set out in this permit in the Section B condition entitled "Permit Shield."

### B.2 Definitions [326 IAC 2-7-1]

Terms in this permit shall have the definition assigned to such terms in the referenced regulation. In the absence of definitions in the referenced regulation, any applicable definitions found in IC 13-11, 326 IAC 1-2 and 326 IAC 2-7 shall prevail.

### B.3 Permit Term [326 IAC 2-7-5(2)]

This permit is issued for a fixed term of five (5) years from the effective date, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3.

### B.4 Enforceability [326 IAC 2-7-7(a)]

- (a) All terms and conditions in this permit, including any provisions designed to limit the source's potential to emit, are enforceable by IDEM.
- (b) Unless otherwise stated, terms and conditions of this permit, including any provisions to limit the source's potential to emit, are enforceable by the United States Environmental Protection Agency (U.S. EPA) and citizens under the Clean Air Act.
- (c) All terms and conditions in this permit that are local requirements, including any provisions designed to limit the source's potential to emit, are enforceable by.

### B.5 Termination of Right to Operate [326 IAC 2-7-10] [326 IAC 2-7-4(a)]

The Permittee's right to operate this source terminates with the expiration of this permit unless a timely and complete renewal application is submitted at least nine (9) months prior to the date of expiration of the source's existing permit, consistent with 326 IAC 2-7-3 and 326 IAC 2-7-4(a).

### B.6 Severability [326 IAC 2-7-5(5)]

The provisions of this permit are severable; a determination that any portion of this permit is invalid shall not affect the validity of the remainder of the permit.

### B.7 Property Rights or Exclusive Privilege [326 IAC 2-7-5(6)(D)]

This permit does not convey any property rights of any sort, or any exclusive privilege.

### B.8 Duty to Supplement and Provide Information [326 IAC 2-7-4(b)] [326 IAC 2-7-5(6)(E)]

(a) The Permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such supplementary facts or corrected information to:

Indiana Department of Environmental Management Permits Branch, Office of Air Quality 100 North Senate Avenue, P. O. Box 6015 Indianapolis, Indiana 46206-6015

- (b) The Permittee shall furnish to IDEM, OAQ, within a reasonable time, any information that IDEM, OAQ, may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit.
- (c) Upon request, the Permittee shall also furnish to IDEM, OAQ, copies of records required to be kept by this permit. If the Permittee wishes to assert a claim of confidentiality over any of the furnished records, the Permittee must furnish such records to IDEM, OAQ, along with a claim of confidentiality under 326 IAC 17. If requested by IDEM, OAQ, or the U.S. EPA, to furnish copies of requested records directly to U. S. EPA, and if the Permittee is making a claim of confidentiality regarding the furnished records, then the Permittee must furnish such confidential records directly to the U.S. EPA along with a claim of confidentiality under 40 CFR 2, Subpart B.

### B.9 Compliance with Permit Conditions [326 IAC 2-7-5(6)(A)] [326 IAC 2-7-5(6)(B)]

- (a) The Permittee must comply with all conditions of this permit. Noncompliance with any provisions of this permit is grounds for:
  - (1) Enforcement action;
  - (2) Permit termination, revocation and reissuance, or modification; or
  - (3) Denial of a permit renewal application.
- (b) Noncompliance with any provisions of this permit, except any provision specifically designated as not federally enforceable, constitutes a violation of the Clean Air Act.
- (c) It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.
- (d) An emergency does constitute an affirmative defense in an enforcement action provided the Permittee complies with the applicable requirements set forth in Section B, Emergency Provisions.

### B.10 Certification [326 IAC 2-7-4(f)] [326 IAC 2-7-6(1)]

- (a) Any application form, report, or compliance certification submitted under this permit shall contain certification by a responsible official of truth, accuracy, and completeness. This certification, and any other certification required under this permit, shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.
- (b) One (1) certification shall be included, on the attached Certification Form, with each submittal.
- (c) A responsible official is defined at 326 IAC 2-7-1(34).

### B.11 Annual Compliance Certification [326 IAC 2-7-6(5)]

(a) The Permittee shall annually submit a compliance certification report which addresses the status of the source's compliance with the terms and conditions contained in this permit, including emission limitations, standards, or work practices. The initial certification shall cover the time period from the date of final permit issuance through December 31 of the same year. All subsequent certifications shall cover the time period from January 1 to December 31 of the previous year, and shall be submitted in letter form no later than April 15 of each year to:

Indiana Department of Environmental Management Compliance Data Section, Office of Air Quality 100 North Senate Avenue, P. O. Box 6015 Indianapolis, Indiana 46206-6015

and

United States Environmental Protection Agency, Region V Air and Radiation Division, Air Enforcement Branch - Indiana (AE-17J) 77 West Jackson Boulevard Chicago, Illinois 60604-3590

- (b) The annual compliance certification report required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.
- (c) The annual compliance certification report shall include the following:
  - (1) The appropriate identification of each term or condition of this permit that is the basis of the certification;
  - (2) The compliance status;
  - (3) Whether compliance was continuous or intermittent;
  - (4) The methods used for determining the compliance status of the source, currently and over the reporting period consistent with 326 IAC 2-7-5(3); and
  - (5) Such other facts, as specified in Sections D of this permit, as IDEM, OAQ, may require to determine the compliance status of the source.

The submittal by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

## B.12 Preventive Maintenance Plan [326 IAC 2-7-5(1),(3) and (13)] [326 IAC 2-7-6(1) and (6)] [326 IAC 1-6-3]

- (a) If required by specific condition(s) in Section D of this permit, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMP) within ninety (90) days after issuance of this permit, including the following information on each facility:
  - (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;
  - (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions;
  - (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

If due to circumstances beyond its control, the PMP cannot be prepared and maintained within the above time frame, the Permittee may extend the date an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management Compliance Branch, Office of Air Quality 100 North Senate Avenue, P. O. Box 6015 Indianapolis, Indiana 46206-6015

- (b) The Permittee shall implement the Preventive Maintenance Plans as necessary to ensure that lack of proper maintenance does not cause or contribute to a violation of any limitation on emissions or potential to emit.
- (c) PMP's shall be submitted to IDEM, OAQ, upon request and shall be subject to review and approval by IDEM, OAQ.

### B.13 Emergency Provisions [326 IAC 2-7-16]

- (a) An emergency, as defined in 326 IAC 2-7-1(12), is not an affirmative defense for an action brought for noncompliance with a federal or state health-based emission limitation, except as provided in 326 IAC 2-7-16.
- (b) An emergency, as defined in 326 IAC 2-7-1(12), constitutes an affirmative defense to an action brought for noncompliance with a health-based or technology-based emission limitation if the affirmative defense of an emergency is demonstrated through properly signed, contemporaneous operating logs or other relevant evidence that describe the following:
  - (1) An emergency occurred and the Permittee can, to the extent possible, identify the causes of the emergency;
  - (2) The permitted facility was at the time being properly operated;
  - (3) During the period of an emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in this permit;
  - (4) For each emergency lasting one (1) hour or more, the Permittee notified IDEM, OAQ, within four (4) daytime business hours after the beginning of the emergency, or after the emergency was discovered or reasonably should have been discovered;

Telephone Number: 1-800-451-6027 (ask for Office of Air Quality, Compliance

Section), or

Telephone Number: 317-233-5674 (ask for Compliance Section)

Facsimile Number: 317-233-5967

(5) For each emergency lasting one (1) hour or more, the Permittee submitted notice, either in writing or facsimile, of the emergency to:

Indiana Department of Environmental Management Compliance Branch, Office of Air Quality 100 North Senate Avenue, P. O. Box 6015 Indianapolis, Indiana 46206-6015

within two (2) working days of the time when emission limitations were exceeded due to the emergency.

The notice fulfills the requirement of 326 IAC 2-7-5(3)(C)(ii) and must contain the following:

- (A) A description of the emergency;
- (B) Any steps taken to mitigate the emissions; and
- (C) Corrective actions taken.

The notification which shall be submitted by the Permittee does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (6) The Permittee immediately took all reasonable steps to correct the emergency.
- (c) In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.
- (d) This emergency provision supersedes 326 IAC 1-6 (Malfunctions) for sources subject to this rule after the effective date of this rule. This permit condition is in addition to any emergency or upset provision contained in any applicable requirement.
- (e) IDEM, OAQ, may require that the Preventive Maintenance Plans required under 326 IAC 2-7-4-(c)(9) be revised in response to an emergency.
- (f) Failure to notify IDEM, OAQ, by telephone or facsimile of an emergency lasting more than one (1) hour in compliance with (b)(4) and (5) of this condition shall constitute a violation of 326 IAC 2-7 and any other applicable rules.
- (g) Operations may continue during an emergency only if the following conditions are met:
  - (1) If the emergency situation causes a deviation from a technology-based limit, the Permittee may continue to operate the affected emitting facilities during the emergency provided the Permittee immediately takes all reasonable steps to correct the emergency and minimize emissions.
  - (2) If an emergency situation causes a deviation from a health-based limit, the Permittee may not continue to operate the affected emissions facilities unless:
    - (A) The Permittee immediately takes all reasonable steps to correct the emergency situation and to minimize emissions; and
    - (B) Continued operation of the facilities is necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw materials of substantial economic value.

Any operation shall continue no longer than the minimum time required to prevent the situations identified in (g)(2)(B) of this condition.

### B.14 Permit Shield [326 IAC 2-7-15]

- (a) This condition provides a permit shield as addressed in 326 IAC 2-7-15.
- (b) This permit shall be used as the primary document for determining compliance with applicable requirements established by previously issued permits. Compliance with the conditions of this permit shall be deemed in compliance with any applicable requirements

as of the date of permit issuance, provided that:

- (1) The applicable requirements are included and specifically identified in this permit; or
- (2) The permit contains an explicit determination or concise summary of a determination that other specifically identified requirements are not applicable.
- (c) If, after issuance of this permit, it is determined that the permit is in nonconformance with an applicable requirement that applied to the source on the date of permit issuance, including any term or condition from a previously issued construction or operation permit, IDEM, OAQ, shall immediately take steps to reopen and revise this permit and issue a compliance order to the Permittee to ensure expeditious compliance with the applicable requirement until the permit is reissued. The permit shield shall continue in effect so long as the Permittee is in compliance with the compliance order.
- (d) No permit shield shall apply to any permit term or condition that is determined after issuance of this permit to have been based on erroneous information supplied in the permit application.
- (e) Nothing in 326 IAC 2-7-15 or in this permit shall alter or affect the following:
  - (1) The provisions of Section 303 of the Clean Air Act (emergency orders), including the authority of the U.S. EPA under Section 303 of the Clean Air Act;
  - (2) The liability of the Permittee for any violation of applicable requirements prior to or at the time of this permit's issuance;
  - (3) The applicable requirements of the acid rain program, consistent with Section 408(a) of the Clean Air Act; and
  - (4) The ability of U.S. EPA to obtain information from the Permittee under Section 114 of the Clean Air Act.
- (f) This permit shield is not applicable to any change made under 326 IAC 2-7-20(b)(2) (Sections 502(b)(10) of the Clean Air Act changes) and 326 IAC 2-7-20(c)(2) (trading based on State Implementation Plan (SIP) provisions).
- (g) This permit shield is not applicable to modifications eligible for group processing until after IDEM, OAQ, has issued the modifications. [326 IAC 2-7-12(c)(7)]
- (h) This permit shield is not applicable to minor Part 70 permit modifications until after IDEM, OAQ, has issued the modification. [326 IAC 2-7-12(b)(8)]

### B.15 Multiple Exceedances [326 IAC 2-7-5(1)(E)]

Any exceedance of a permit limitation or condition contained in this permit, which occurs contemporaneously with an exceedance of an associated surrogate or operating parameter established to detect or assure compliance with that limit or condition, both arising out of the same act or occurrence, shall constitute a single potential violation of this permit.

### B.16 Deviations from Permit Requirements and Conditions [326 IAC 2-7-5(3)(C)(ii)]

(a) Deviations from any permit requirements (for emergencies see Section B - Emergency Provisions), the probable cause of such deviations, and any response steps or preventive measures taken shall be reported to:

Indiana Department of Environmental Management Compliance Data Section, Office of Air Quality 100 North Senate Avenue, P.O. Box 6015 Indianapolis, Indiana 46206-6015

within ten (10) calendar days from the date of the discovery of the deviation.

- (b) A deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit or a rule. It does not include:
  - (1) An excursion from compliance monitoring parameters as identified in Section D of this permit unless tied to an applicable rule or limit; or
  - (2) An emergency as defined in 326 IAC 2-7-1(12); or
  - (3) Failure to implement elements of the Preventive Maintenance Plan unless lack of maintenance has caused or contributed to a deviation.
  - (4) Failure to make or record information required by the compliance monitoring provisions of Section D unless such failure exceeds 5% of the required data in any calendar quarter.

A Permittee's failure to take the appropriate response step when an excursion of a compliance monitoring parameter has occurred is a deviation.

- (c) Written notification shall be submitted on the attached Emergency/Deviation Occurrence Reporting Form or its substantial equivalent. The notification does not need to be certified by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (d) Proper notice submittal under 326 IAC 2-7-16 satisfies the requirement of this subsection.
- B.17 Permit Modification, Reopening, Revocation and Reissuance, or Termination [326 IAC 2-7-5(6)(C)] [326 IAC 2-7-8(a)] [326 IAC 2-7-9]
  - (a) This permit may be modified, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a Part 70 permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any condition of this permit. [326 IAC 2-7-5(6)(C)]
  - (b) This permit shall be reopened and revised under any of the circumstances listed in IC 13-15-7-2 or if IDEM, OAQ, determines any of the following:
    - (1) That this permit contains a material mistake.
    - (2) That inaccurate statements were made in establishing the emissions standards or other terms or conditions.
    - (3) That this permit must be revised or revoked to assure compliance with an applicable requirement. [326 IAC 2-7-9(a)(3)]
  - (c) Proceedings by IDEM, OAQ, to reopen and revise this permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of this permit for which cause to reopen exists. Such reopening and revision shall be made as expeditiously as practicable. [326 IAC 2-7-9(b)]

(d) The reopening and revision of this permit, under 326 IAC 2-7-9(a), shall not be initiated before notice of such intent is provided to the Permittee by IDEM, OAQ, at least thirty (30) days in advance of the date this permit is to be reopened, except that IDEM, OAQ, may provide a shorter time period in the case of an emergency. [326 IAC 2-7-9(c)]

### B.18 Permit Renewal [326 IAC 2-7-4]

(a) The application for renewal shall be submitted using the application form or forms prescribed by IDEM, OAQ, and shall include the information specified in 326 IAC 2-7-4. Such information shall be included in the application for each emission unit at this source, except those emission units included on the trivial or insignificant activities list contained in 326 IAC 2-7-1(21) and 326 IAC 2-7-1(40).

Request for renewal shall be submitted to:

Indiana Department of Environmental Management Permits Branch, Office of Air Quality 100 North Senate Avenue, P.O. Box 6015 Indianapolis, Indiana 46206-6015

- (b) Timely Submittal of Permit Renewal [326 IAC 2-7-4(a)(1)(D)]
  - (1) A timely renewal application is one that is:
    - (A) Submitted at least nine (9) months prior to the date of the expiration of this permit; and
    - (B) If the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due. [326 IAC 2-5-3]
  - (2) If IDEM, OAQ, upon receiving a timely and complete permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect, including any permit shield provided in 326 IAC 2-7-15, until the renewal permit has been issued or denied.
- (c) Right to Operate After Application for Renewal [326 IAC 2-7-3] If the Permittee submits a timely and complete application for renewal of this permit, the source's failure to have a permit is not a violation of 326 IAC 2-7 until IDEM, OAQ, takes final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the deadline specified in writing by IDEM, OAQ, any additional information identified as being needed to process the application.
- (d) United States Environmental Protection Agency Authority [326 IAC 2-7-8(e)] If IDEM, OAQ, fails to act in a timely way on a Part 70 permit renewal, the U.S. EPA may invoke its authority under Section 505(e) of the Clean Air Act to terminate or revoke and reissue a Part 70 permit.

### B.19 Permit Amendment or Modification [326 IAC 2-7-11] [326 IAC 2-7-12]

(a) The Permittee must comply with the requirements of 326 IAC 2-7-11 or 326 IAC 2-7-12 whenever the Permittee seeks to amend or modify this permit.

(b) Any application requesting an amendment or modification of this permit shall be submitted to:

Indiana Department of Environmental Management Permits Branch, Office of Air Quality 100 North Senate Avenue, P.O. Box 6015 Indianapolis, Indiana 46206-6015

Any such application should be certified by the "responsible official" as defined by 326 IAC 2-7-1(34) only if a certification is required by the terms of the applicable rule

(c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-7-11(c)(3)]

# B.20 Permit Revision Under Economic Incentives and Other Programs [326 IAC 2-7-5(8)] [326 IAC 2-7-12 (b)(2)]

- (a) No Part 70 permit revision shall be required under any approved economic incentives, marketable Part 70 permits, emissions trading, and other similar programs or processes for changes that are provided for in a Part 70 permit.
- (b) Notwithstanding 326 IAC 2-7-12(b)(1)(D)(i) and 326 IAC 2-7-12(c)(1), minor Part 70 permit modification procedures may be used for Part 70 modifications involving the use of economic incentives, marketable Part 70 permits, emissions trading, and other similar approaches to the extent that such minor Part 70 permit modification procedures are explicitly provided for in the applicable State Implementation Plan (SIP) or in applicable requirements promulgated or approved by the U.S. EPA.

### B.21 Changes Under Section 502(b)(10) of the Clean Air Act [326 IAC 2-7-20(b)]

The Permittee may make Section 502(b)(10) of the Clean Air Act changes (this term is defined at 326 IAC 2-7-1(36)) without a permit revision, subject to the constraint of 326 IAC 2-7-20(a) and the following additional conditions:

- (a) For each such change, the required written notification shall include a brief description of the change within the source, the date on which the change will occur, any change in emissions, and any permit term or condition that is no longer applicable as a result of the change.
- (b) The permit shield, described in 326 IAC 2-7-15, shall not apply to any change made under 326 IAC 2-7-20(b).

### B.22 Operational Flexibility [326 IAC 2-7-20]

- (a) The Permittee may make any change or changes at the source that are described in 326 IAC 2-7-20(b), (c), or (e), without a prior permit revision, if each of the following conditions is met:
  - (1) The changes are not modifications under any provision of Title I of the Clean Air Act:
  - (2) Any approval required by 326 IAC 2-1 has been obtained;
  - (3) The changes do not result in emissions which exceed the emissions allowable under this permit (whether expressed herein as a rate of emissions or in terms of total emissions);

(4) The Permittee notifies the:

Indiana Department of Environmental Management Permits Branch, Office of Air Quality 100 North Senate Avenue, P. O. Box 6015 Indianapolis, Indiana 46206-6015

and

United States Environmental Protection Agency, Region V Air and Radiation Division, Regulation Development Branch - Indiana (AR-18J) 77 West Jackson Boulevard Chicago, Illinois 60604-3590

in advance of the change by written notification at least ten (10) days in advance of the proposed change. The Permittee shall attach every such notice to the Permittee's copy of this permit; and

(5) The Permittee maintains records on-site which document, on a rolling five (5) year basis, all such changes and emissions trading that are subject to 326 IAC 2-7-20(b), (c), or (e) and makes such records available, upon reasonable request, for public review.

Such records shall consist of all information required to be submitted to IDEM, OAQ, in the notices specified in 326 IAC 2-7-20(b), (c)(1), and (e)(2).

- (b) For each such Section 502(b)(10) of the Clean Air Act change, the required written notification shall include the following:
  - (1) A brief description of the change within the source;
  - (2) The date on which the change will occur;
  - (3) Any change in emissions; and
  - (4) Any permit term or condition that is no longer applicable as a result of the change.

The notification which shall be submitted by the Permittee does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (c) Emission Trades [326 IAC 2-7-20(c)]
  The Permittee may trade increases and decreases in emissions in the source, where the applicable SIP provides for such emission trades without requiring a permit revision, subject to the constraints of Section (a) of this condition and those in 326 IAC 2-7-20(c).
- (d) Alternative Operating Scenarios [326 IAC 2-7-20(d)]

  The Permittee may make changes at the source within the range of alternative operating scenarios that are described in the terms and conditions of this permit in accordance with 326 IAC 2-7-5(9). No prior notification of IDEM, OAQ, or U.S. EPA is required.
- (e) Backup fuel switches specifically addressed in, and limited under, Section D of this permit shall not be considered alternative operating scenarios. Therefore, the notification requirements of part (a) of this condition do not apply.

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#### B.23 Construction Permit Requirement [326 IAC 2]

Except as allowed by Indiana P.L. 130-1996 Section 12, as amended by P.L. 244-1997, modification, construction, or reconstruction shall be approved as required by and in accordance with 326 IAC 2.

#### B.24 Inspection and Entry [326 IAC 2-7-6(2)]

Upon presentation of proper identification cards, credentials, and other documents as may be required by law, the Permittee shall allow IDEM, OAQ, U.S. EPA, or an authorized representative to perform the following:

- Enter upon the Permittee's premises where a Part 70 source is located, or emissions (a) related activity is conducted, or where records must be kept under the conditions of this permit;
- Have access to and copy, at reasonable times, any records that must be kept under the (b) conditions of this permit;
- Inspect, at reasonable times, any facilities, equipment (including monitoring and air (c) pollution control equipment), practices, or operations regulated or required under this permit:
- (d) Sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and
- (e) Utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements. [326 IAC 2-7-6(6)]
  - (1) The Permittee may assert a claim that, in the opinion of the Permittee, information removed or about to be removed from the source by IDEM, OAQ, or an authorized representative, contains information that is confidential under IC 5-14-3-4(a). The claim shall be made in writing before or at the time the information is removed from the source. In the event that a claim of confidentiality is so asserted, neither IDEM, OAQ, nor an authorized representative, may disclose the information unless and until IDEM, OAQ, makes a determination under 326 IAC 17-1-7 through 326 IAC 17-1-9 that the information is not entitled to confidential treatment and that determination becomes final. [IC 5-14-3-4; IC 13-14-11-3; 326 IAC 17-1-7 through 326 IAC 17-1-9]
  - (2) The Permittee and IDEM, OAQ, acknowledge that the federal law applies to claims of confidentiality made by the Permittee with regard to information removed or about to be removed from the source by U.S. EPA. [40 CFR Part 2, Subpart B1

#### B.25 Transfer of Ownership or Operation [326 IAC 2-1-6] [326 IAC 2-7-11] Pursuant to 326 IAC 2-1-6 and 326 IAC 2-7-11:

- (a) In the event that ownership of this source is changed, the Permittee shall notify IDEM, OAQ, Permits Branch, within thirty (30) days of the change. Notification shall include a written agreement containing a specific date for transfer of permit responsibility, coverage, and liability between the Permittee and the new owner.
- (b) The written notification shall be sufficient to transfer the permit to the new owner by an administrative amendment pursuant to 326 IAC 2-7-11. The notification which shall be

submitted by the Permittee does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(c) IDEM, OAQ, shall reserve the right to issue a new permit.

### B.26 Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-7-5(7)]

- (a) The Permittee shall pay annual fees to IDEM, OAQ, within thirty (30) calendar days of receipt of a billing. If the Permittee does not receive a bill from IDEM, OAQ the applicable fee is due April 1 of each year.
- (b) Failure to pay may result in administrative enforcement action, or revocation of this permit.
- (c) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-0425 (ask for OAQ, Technical Support and Modeling Section), to determine the appropriate permit fee.

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### **SECTION C**

### **SOURCE OPERATION CONDITIONS**

### **Entire Source**

### Emission Limitations and Standards [326 IAC 2-7-5(1)]

#### C.1 Major Source

Pursuant to 326 IAC 2-2 (Prevention of Significant Deterioration) and 40 CFR 52.21 and 326 IAC 2-3 (Emission Offset), this source is a major source.

C.2 Particulate Matter Emission Limitations For Processes with Process Weight Rates Less Than One Hundred (100) pounds per hour [326 IAC 6-3-2(c)]

Pursuant to 326 IAC 6-3-2(c), the allowable particulate matter emissions rate from any process not already regulated by 326 IAC 6-1 or any New Source Performance Standard, and which has a maximum process weight rate less than 100 pounds per hour shall not exceed 0.551 pounds per hour.

#### C.3 Opacity [326 IAC 5-1]

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Exemptions), opacity shall meet the following, unless otherwise stated in this permit:

- Opacity shall not exceed an average of twenty percent (20%) in any one (1) six (6) minute (a) averaging period, as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute overlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

#### C.4 Open Burning [326 IAC 4-1] [IC 13-17-9]

The Permittee shall not open burn any material except as provided in 326 IAC 4-1-3, 326 IAC 4-1-4 or 326 IAC 4-1-6. The previous sentence notwithstanding, the Permittee may open burn in accordance with an open burning approval issued by the Commissioner under 326 IAC 4-1-4.1. 326 IAC 4-1-3 (a)(2)(A) and (B) are not federally enforceable.

#### C.5 Incineration [326 IAC 4-2][326 IAC 9-1-2]

The Permittee shall not operate an incinerator or incinerate any waste or refuse except as provided in 326 IAC 4-2 and 326 IAC 9-1-2.

#### C.6 Fugitive Dust Emissions [326 IAC 6-4]

The Permittee shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4 (Fugitive Dust Emissions). 326 IAC 6-4-2(4) is not federally enforceable.

#### C.7 Operation of Equipment [326 IAC 2-7-6(6)]

All air pollution control equipment listed in this permit and used to comply with an applicable requirement shall be operated at all times that the emission units vented to the control equipment are in operation.

#### Stack Height [326 IAC 1-7] C.8

The Permittee shall comply with the applicable provisions of 326 IAC 1-7 (Stack Height Provisions), for all exhaust stacks through which a potential (before controls) of twenty-five (25) tons per year or more of particulate matter or sulfur dioxide is emitted.

C.9 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61.140]

- (a) Notification requirements apply to each owner or operator. If the combined amount of regulated asbestos containing material (RACM) to be stripped, removed or disturbed is at least 260 linear feet on pipes or 160 square feet on other facility components, or at least thirty-five (35) cubic feet on all facility components, then the notification requirements of 326 IAC 14-10-3 are mandatory. All demolition projects require notification whether or not asbestos is present.
- (b) The Permittee shall ensure that a written notification is sent on a form provided by the Commissioner at least ten (10) working days before asbestos stripping or removal work or before demolition begins, per 326 IAC 14-10-3, and shall update such notice as necessary, including, but not limited to the following:
  - (1) When the amount of affected asbestos containing material increases or decreases by at least twenty percent (20%); or
  - (2) If there is a change in the following:
    - (A) Asbestos removal or demolition start date;
    - (B) Removal or demolition contractor; or
    - (C) Waste disposal site.
- (c) The Permittee shall ensure that the notice is postmarked or delivered according to the guidelines set forth in 326 IAC 14-10-3(2).
- (d) The notice to be submitted shall include the information enumerated in 326 IAC 14-10-3(3).

All required notifications shall be submitted to:

Indiana Department of Environmental Management Asbestos Section, Office of Air Quality 100 North Senate Avenue, P.O. Box 6015 Indianapolis, Indiana 46206-6015

The notifications do not require a certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (e) Procedures for Asbestos Emission Control
  The Permittee shall comply with the emission control procedures in 326 IAC 14-10-4 and
  40 CFR 61.145(c). Per 326 IAC 14-10-4 emission control requirements are mandatory for
  any removal or disturbance of RACM greater than three (3) linear feet on pipes or three
  (3) square feet on any other facility components or a total of at least 0.75 cubic feet on all
  facility components.
- (f) Indiana Accredited Asbestos Inspector The Permittee shall comply with 326 IAC 14-10-1(a) that requires the owner or operator, prior to a renovation/demolition, to use an Indiana Accredited Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos. The requirement that the inspector be accredited is federally enforceable.

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### Testing Requirements [326 IAC 2-7-6(1)]

### C.10 Performance Testing [326 IAC 3-6]

(a) All testing shall be performed according to the provisions of 326 IAC 3-6 (Source Sampling Procedures), except as provided elsewhere in this permit, utilizing methods approved by IDEM, OAQ.

A test protocol, except as provided elsewhere in this permit, shall be submitted to:

Indiana Department of Environmental Management Compliance Data Section, Office of Air Quality 100 North Senate Avenue, P. O. Box 6015 Indianapolis, Indiana 46206-6015

no later than thirty-five (35) days prior to the intended test date. The Permittee shall submit a notice of the actual test date to the above address so that it is received at least two weeks prior to the test date.

(b) All test reports must be received by IDEM, OAQ within forty-five (45) days after the completion of the testing. An extension may be granted by the Commissioner, if the source submits to IDEM, OAQ, a reasonable written explanation within five (5) days prior to the end of the initial forty-five (45) day period.

The documentation submitted by the Permittee does not require certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

### Compliance Monitoring Requirements [326 IAC 2-7-5(1)] [326 IAC 2-7-6(1)]

### C.11 Compliance Schedule [326 IAC 2-7-6(3)]

The Permittee:

- (a) Has certified that all facilities at this source are in compliance with all applicable requirements; and
- (b) Has submitted a statement that the Permittee will continue to comply with such requirements; and
- (c) Will comply with such applicable requirements that become effective during the term of this permit.

### C.12 Compliance Monitoring [326 IAC 2-7-5(3)] [326 IAC 2-7-6(1)]

Compliance with applicable requirements shall be documented as required by this permit. The Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment, no more than ninety (90) days after receipt of this permit. If due to circumstances beyond its control, this schedule cannot be met, the Permittee may extend compliance schedule an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management Compliance Branch, Office of Air Quality 100 North Senate Avenue, P. O. Box 6015 Indianapolis, Indiana 46206-6015

in writing, prior to the end of the initial ninety (90) day compliance schedule, with full justification of the reasons for the inability to meet this date.

The notification which shall be submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

### C.13 Maintenance of Monitoring Equipment [326 IAC 2-7-5(3)(A)(iii)]

- (a) In the event that a breakdown of the monitoring equipment occurs, a record shall be made of the times and reasons of the breakdown and efforts made to correct the problem. To the extent practicable, supplemental or intermittent monitoring of the parameter should be implemented at intervals no less frequent than required in Section D of this permit until such time as the monitoring equipment is back in operation. In the case of continuous monitoring, supplemental or intermittent monitoring of the parameter should be implemented at intervals no less than one (1) hour until such time as the continuous monitor is back in operation.
- (b) The Permittee shall install, calibrate, quality assure, maintain, and operate all necessary monitors and related equipment. In addition, prompt corrective action shall be initiated whenever indicated.

### C.14 Monitoring Methods [326 IAC 3]

Any monitoring or testing performed to meet the applicable requirements of this permit shall be performed according to the provisions of 326 IAC 3, 40 CFR 60, Appendix A, or other approved methods as specified in this permit.

### C.15 Pressure Gauge Specifications

Whenever a condition in this permit requires the measurement of pressure drop across any part of the unit or its control device, the gauge employed shall have a scale such that the expected normal reading shall be no less than twenty percent (20%) of full scale and be accurate within plus or minus two percent (±2%) of full scale reading.

### Corrective Actions and Response Steps [326 IAC 2-7-5] [326 IAC 2-7-6]

### C.16 Emergency Reduction Plans [326 IAC 1-5-2] [326 IAC 1-5-3]

Pursuant to 326 IAC 1-5-2 (Emergency Reduction Plans; Submission):

- (a) The Permittee shall prepare written emergency reduction plans (ERPs) consistent with safe operating procedures.
- (b) These ERPs shall be submitted for approval to:

Indiana Department of Environmental Management Compliance Branch, Office of Air Quality 100 North Senate Avenue, P.O. Box 6015 Indianapolis, Indiana 46206-6015

within ninety (90) days after the date of issuance of this permit.

The ERP does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (c) If the ERP is disapproved by IDEM, OAQ, the Permittee shall have an additional thirty (30) days to resolve the differences and submit an approvable ERP.
- (d) These ERPs shall state those actions that will be taken, when each episode level is declared, to reduce or eliminate emissions of the appropriate air pollutants.

- (e) Said ERPs shall also identify the sources of air pollutants, the approximate amount of reduction of the pollutants, and a brief description of the manner in which the reduction will be achieved.
- (f) Upon direct notification by IDEM, OAQ, that a specific air pollution episode level is in effect, the Permittee shall immediately put into effect the actions stipulated in the approved ERP for the appropriate episode level. [326 IAC 1-5-3]

### C.17 Risk Management Plan [326 IAC 2-7-5(12)] [40 CFR 68.215]

If a regulated substance, subject to 40 CFR 68, is present in a process in more than the threshold quantity, 40 CFR 68 is an applicable requirement and the Permittee shall:

- (a) Submit:
  - (1) A compliance schedule for meeting the requirements of 40 CFR 68 by the date provided in 40 CFR 68.10(a); or
  - (2) As a part of the compliance certification submitted under 326 IAC 2-7-6(5), a certification statement that the source is in compliance with all the requirements of 40 CFR 68, including the registration and submission of a Risk Management Plan (RMP); and
  - (3) A verification to IDEM, OAQ, that a RMP or a revised plan was prepared and submitted as required by 40 CFR 68.
- (b) Provide annual certification to IDEM, OAQ, that the Risk Management Plan is being properly implemented.

All documents submitted pursuant to this condition shall include the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- C.18 Compliance Monitoring Plan Failure to Take Response Steps [326 IAC 2-7-5][326 IAC 2-7-6] [326 IAC 1-6]
  - (a) The Permittee is required to implement a compliance monitoring plan to ensure that reasonable information is available to evaluate its continuous compliance with applicable requirements. This compliance monitoring plan is comprised of:
    - (1) This condition;
    - (2) The Compliance Determination Requirements in Section D of this permit;
    - (3) The Compliance Monitoring Requirements in Section D of this permit;
    - (4) The Record Keeping and Reporting Requirements in Section C (Monitoring Data Availability, General Record Keeping Requirements, and General Reporting Requirements) and in Section D of this permit; and
    - (5) A Compliance Response Plan (CRP) for each compliance monitoring condition of this permit. CRP's shall be submitted to IDEM, OAQ upon request and shall be subject to review and approval by IDEM, OAQ. The CRP shall be prepared within ninety (90) days after issuance of this permit by the Permittee and maintained on site, and is comprised of:
      - (A) Response steps that will be implemented in the event that compliance related information indicates that a response step is needed pursuant to

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- the requirements of Section D of this permit; and
- (B) A time schedule for taking such response steps including a schedule for devising additional response steps for situations that may not have been predicted.
- (b) For each compliance monitoring condition of this permit, appropriate response steps shall be taken when indicated by the provisions of that compliance monitoring condition. Failure to perform the actions detailed in the compliance monitoring conditions or failure to take the response steps within the time prescribed in the Compliance Response Plan, shall constitute a violation of the permit unless taking the response steps set forth in the Compliance Response Plan would be unreasonable.
- After investigating the reason for the excursion, the Permittee is excused from taking (c) further response steps for any of the following reasons:
  - (1) The monitoring equipment malfunctioned, giving a false reading. This shall be an excuse from taking further response steps providing that prompt action was taken to correct the monitoring equipment.
  - (2) The Permittee has determined that the compliance monitoring parameters established in the permit conditions are technically inappropriate, has previously submitted a request for an administrative amendment to the permit, and such request has not been denied or;
  - (3)An automatic measurement was taken when the process was not operating; or
  - (4) The process has already returned to operating within "normal" parameters and no response steps are required.
- (d) Records shall be kept of all instances in which the compliance related information was not met and of all response steps taken. In the event of an emergency, the provisions of 326 IAC 2-7-16 (Emergency Provisions) requiring prompt corrective action to mitigate emissions shall prevail.
- Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-7-5] C.19 [326 IAC 2-7-6]
  - When the results of a stack test performed in conformance with Section C Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall take appropriate corrective actions. The Permittee shall submit a description of these corrective actions to IDEM, OAQ, within thirty (30) days of receipt of the test results. The Permittee shall take appropriate action to minimize emissions from the affected facility while the corrective actions are being implemented. IDEM, OAQ shall notify the Permittee within thirty (30) days, if the corrective actions taken are deficient. The Permittee shall submit a description of additional corrective actions taken to IDEM. OAQ within thirty (30) days of receipt of the notice of deficiency. IDEM, OAQ reserves the authority to use enforcement activities to resolve noncompliant stack tests.
  - (b) A retest to demonstrate compliance shall be performed within one hundred twenty (120) days of receipt of the original test results. Should the Permittee demonstrate to IDEM, OAQ that retesting in one-hundred and twenty (120) days is not practicable, IDEM, OAQ may extend the retesting deadline. Failure of the second test to demonstrate compliance with the appropriate permit conditions may be grounds for immediate revocation of the permit to operate the affected facility.

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The documents submitted pursuant to this condition do not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

### Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

### C.20 Emission Statement [326 IAC 2-7-5(3)(C)(iii)][326 IAC 2-7-5(7)][326 IAC 2-7-19(c)][326 IAC 2-6]

- (a) The Permittee shall submit an annual emission statement certified pursuant to the requirements of 326 IAC 2-6, that must be received by April 15 of each year and must comply with the minimum requirements specified in 326 IAC 2-6-4. The annual emission statement shall meet the following requirements:
  - (1) Indicate actual emissions of criteria pollutants from the source, in compliance with 326 IAC 2-6 (Emission Reporting);
  - (2) Indicate actual emissions of other regulated pollutants from the source, for purposes of Part 70 fee assessment.
- (b) The annual emission statement covers the twelve (12) consecutive month time period starting December 1 and ending November 30. The annual emission statement must be submitted to:

Indiana Department of Environmental Management Technical Support and Modeling Section, Office of Air Quality 100 North Senate Avenue, P. O. Box 6015 Indianapolis, Indiana 46206-6015

(c) The annual emission statement required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.

### C.21 Monitoring Data Availability [326 IAC 2-7-6(1)] [326 IAC 2-7-5(3)]

- (a) With the exception of performance tests conducted in accordance with Section C-Performance Testing, all observations, sampling, maintenance procedures, and record keeping, required as a condition of this permit shall be performed at all times the equipment is operating at normal representative conditions.
- (b) As an alternative to the observations, sampling, maintenance procedures, and record keeping of subsection (a) above, when the equipment listed in Section D of this permit is not operating, the Permittee shall either record the fact that the equipment is shut down or perform the observations, sampling, maintenance procedures, and record keeping that would otherwise be required by this permit.
- (c) If the equipment is operating but abnormal conditions prevail, additional observations and sampling should be taken with a record made of the nature of the abnormality.
- (d) If for reasons beyond its control, the operator fails to make required observations, sampling, maintenance procedures, or record keeping, reasons for this must be recorded.
- (e) At its discretion, IDEM may excuse such failure providing adequate justification is documented and such failures do not exceed five percent (5%) of the operating time in any quarter.

(f) Temporary, unscheduled unavailability of staff qualified to perform the required observations, sampling, maintenance procedures, or record keeping shall be considered a valid reason for failure to perform the requirements stated in (a) above.

### C.22 General Record Keeping Requirements [326 IAC 2-7-5(3)][326 IAC 2-7-6]

- (a) Records of all required monitoring data and support information shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be kept at the source location for a minimum of three (3) years and available upon the request of an IDEM, OAQ representative. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a written request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.
- (b) Records of required monitoring information shall include, where applicable:
  - (1) The date, place, and time of sampling or measurements;
  - (2) The dates analyses were performed;
  - (3) The company or entity performing the analyses;
  - (4) The analytic techniques or methods used;
  - (5) The results of such analyses; and
  - (6) The operating conditions existing at the time of sampling or measurement.
- (c) Support information shall include, where applicable:
  - (1) Copies of all reports required by this permit;
  - (2) All original strip chart recordings for continuous monitoring instrumentation;
  - (3) All calibration and maintenance records;
  - (4) Records of preventive maintenance shall be sufficient to demonstrate that improper maintenance did not cause or contribute to a violation of any limitation on emissions or potential to emit. To be relied upon subsequent to any such violation, these records may include, but are not limited to: work orders, parts inventories, and operator's standard operating procedures. Records of response steps taken shall indicate whether the response steps were performed in accordance with the Compliance Response Plan required by Section C Compliance Monitoring Plan Failure to take Response Steps, of this permit, and whether a deviation from a permit condition was reported. All records shall briefly describe what maintenance and response steps were taken and indicate who performed the tasks.
- (d) All record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance.

### C.23 General Reporting Requirements [326 IAC 2-7-5(3)(C)]

(a) To affirm that the source has met all the compliance monitoring requirements stated in this permit the source shall submit a Semi-Annual Compliance Monitoring Report. Any deviation from the requirements and the date(s) of each deviation must be reported.

- (b) The report required in (a) of this condition and reports required by conditions in Section D of this permit shall be submitted to:
  - Indiana Department of Environmental Management Compliance Data Section, Office of Air Quality 100 North Senate Avenue, P. O. Box 6015 Indianapolis, Indiana 46206-6015
- (c) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.
- (d) Unless otherwise specified in this permit, any semi-annual report shall be submitted within thirty (30) days of the end of the reporting period.
- (e) All instances of deviations as described in Section B- Deviations from Permit Requirements Conditions must be clearly identified in such reports.
- (f) Any corrective actions or response steps taken as a result of each deviation must be clearly identified in such reports.
- (g) The first report shall cover the period commencing on the date of issuance of this permit and ending on the last day of the reporting period.

The documents submitted pursuant to this condition do not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

### **Stratospheric Ozone Protection**

### C.24 Compliance with 40 CFR 82 and 326 IAC 22-1

Pursuant to 40 CFR 82 (Protection of Stratospheric Ozone), Subpart F, except as provided for motor vehicle air conditioners in Subpart B, the Permittee shall comply with the standards for recycling and emissions reduction:

- (a) Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to 40 CFR 82.156.
- (b) Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to 40 CFR 82.158.
- (c) Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR 82.161.

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### **SECTION D.1**

### **FACILITY OPERATION CONDITIONS**

Facility Description [326 IAC 2-7-5(15)]

Raw material handling and storage, consisting of the following equipment:

- (a) One (1) pneumatic rail car unloading facility, with a maximum throughput of 24,000 pounds per hour, used for limestone, hydrocal, and mica, with particulate matter emissions controlled by each individual baghouse identified as JBH-11, JBH-12 and JBH-13, and exhausting through each respective stack identified as J-11, J-12 and J-13 respectively.
- (b) One (1) pneumatic truck unloading facility, with a maximum throughput of 22,000 pounds per hour, used for perlite, with particulate matter emissions controlled by one (1) baghouse, identified as JBH-16, and exhausting through one (1) stack, identified as J-16.
- (c) One (1) limestone storage silo, with a maximum capacity of 330 tons, with particulate matter emissions controlled by one (1) baghouse, identified as JBH-11, and exhausting through one (1) stack, identified as J-11.
- (d) One (1) hydrocal storage silo, with a maximum capacity of 140 tons, with particulate matter emissions controlled by one (1) baghouse, identified as JBH-12, and exhausting through one (1) stack, identified as J-12.
- (e) One (1) mica storage silo, with a maximum capacity of 60 tons, with particulate matter emissions controlled by one (1) baghouse, identified as JBH-13, and exhausting through one (1) stack, identified as J-13.
- (f) One (1) perlite storage silo, with a maximum capacity of 250 tons, with particulate matter emissions controlled by one (1) baghouse, identified as JBH-16, and exhausting through one (1) stack, identified as J-16.
- (g) One (1) enclosed rock shed, with a maximum capacity of 125,000 tons.
- (h) One (1) synthetic gypsum stockpile, identified as F-1, with particulate matter emissions exhausting directly to the atmosphere.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

### Emission Limitations and Standards [326 IAC 2-7-5(1)]

### D.1.1 Nonattainment Area Particulate Limitation [326 IAC 6-1-2]

Pursuant to 326 IAC 6-1-2 (Nonattainment Area Particulate Limitations), the PM emissions from the truck unloading facility exhausting to stack J16 and from the transfer vacuum receiver each shall not exceed 0.03 grains per dry standard cubic foot (gr/dscf).

### D.1.2 Lake County PM<sub>10</sub> Emission Requirements [326 IAC 6-1-10.1]

Pursuant to 326 IAC 6-1-10.1 (Lake County  $PM_{10}$  Emission Requirements), the  $PM_{10}$  emissions from the storage and conveying facilities exhausting to stacks J11, J12 and J13 shall each not exceed 0.015 grains per dry standard cubic foot and 0.190 pounds per hour.

### D.1.3 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for these facilities and their control devices.

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### **Compliance Determination Requirements**

### D.1.4 Testing Requirements [326 IAC 2-7-6(1),(6)]

The Permittee is not required to test this facility by this permit. However, IDEM may require compliance testing at any specific time when necessary to determine if the facility is in compliance. If testing is required by IDEM, compliance with the PM and PM<sub>10</sub> limits specified in Conditions D.1.1 and D.1.2 shall be determined by a performance test conducted in accordance with Section C - Performance Testing.

### D.1.5 Particulate Matter (PM)

Pursuant to OP-45-07-93-0520, issued on December 19, 1989, the baghouses for PM control shall be in operation at all times when the associated raw material handling and storage facility is in operation.

### Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

### D.1.6 Visible Emissions Notations

- (a) Visible emission notations of the stack exhausts J11, J12, J13 and J16 shall be performed once per shift during normal daylight operations when the associated facilities are in operation and exhausting directly to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (e) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed.

### D.1.7 Parametric Monitoring

The Permittee shall record the total static pressure drop across the baghouses used in conjunction with the raw material handling and storage facilities, at least once per shift when the associated raw material handling and storage facility is in operation when venting directly to the atmosphere. Unless operated under conditions for which the Compliance Response Plan specifies otherwise, the pressure drop across the baghouses shall be maintained within the range of 0.5 and 6.0 inches of water or a range established during the latest stack test. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when the pressure reading is outside of the above mentioned range for any one reading.

The instrument used for determining the pressure shall comply with Section C - Pressure Gauge Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.

### D.1.8 Baghouse Inspections

An inspection shall be performed each calender quarter of all bags controlling the raw material handling and storage facilities. All defective bags shall be replaced.

#### D.1.9 Broken or Failed Bag Detection

In the event that bag failure has been observed.

- (a) The affected compartments will be shut down immediately until the failed units have been repaired or replaced. Within eight (8) hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) hours of discovery of the failure and shall include a timetable for completion. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B Emergency Provisions).
- (b) For single compartment baghouses, failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B Emergency Provisions).

#### Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

#### D.1.10 Record Keeping Requirements

- (a) To document compliance with Condition D.1.6, the Permittee shall maintain records of visible emission notations of the baghouse stack exhausts J11, J12, J13 and J16 once per shift.
- (b) To document compliance with Condition D.1.7, the Permittee shall maintain the following:
  - (1) Records of the following operational parameters taken once per shift during normal operation when venting directly to the atmosphere:
    - (A) Inlet and outlet differential static pressure; and
    - (B) Cleaning cycle: frequency and differential pressure.
  - (2) Documentation of all response steps implemented, per event .
  - (3) Operation and preventive maintenance logs, including work purchases orders, shall be maintained.
  - (4) Quality Assurance/Quality Control (QA/QC) procedures.
  - (5) Operator standard operating procedures (SOP).
  - (6) Manufacturer's specifications or its equivalent.
  - (7) Equipment "troubleshooting" contingency plan.
  - (8) Documentation of the dates vents are redirected.
- (c) To document compliance with Condition D.1.8, the Permittee shall maintain records of the results of the inspections required under Condition D.1.8.
- (d) All records shall be maintained in accordance with Section C General Record Keeping Requirements, of this permit.

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#### **SECTION D.2**

#### **FACILITY OPERATION CONDITIONS**

Facility Description [326 IAC 2-7-5(15)]

A landplaster production process, consisting of the following equipment:

- (a) A conveying system, consisting of belt and screw conveyors, with particulate matter emissions controlled by partial or total enclosure, and exhausting to associated processes or directly to the atmosphere. Some portions of the conveyor system are controlled by one (1) baghouse, identified as MBH-2, and exhausting through one (1) stack, identified as M-2.
- (b) One (1) dryer mill bin #1, with a maximum capacity of 60 tons and a throughput of 40 tons per hour, with particulate matter emissions uncontrolled, and exhausting directly to the atmosphere.
- (c) One (1) dryer mill bin #2, with a maximum capacity of 60 tons and a throughput of 40 tons per hour, with particulate matter emissions uncontrolled, and exhausting directly to the atmosphere.
- (d) One (1) dryer mill #1, with a maximum throughput of 35 tons per hour, with particulate matter emissions controlled by one (1) baghouse, identified as MBH-8, and exhausting through one (1) stack, identified as M-8.
- (e) One (1) natural gas-fired burner for the dryer mill #1, with a heat input capacity of 20 MMBtu per hour, and exhausting through one (1) stack, identified as M-8.
- (f) One (1) screening station #1, with a maximum throughput of 35 tons per hour, with particulate matter emissions controlled by one (1) baghouse, identified as MBH-8, and exhausting through one (1) stack, identified as M-8.
- (g) One (1) dryer mill #2, with a maximum throughput of 35 tons per hour, with particulate matter emissions controlled by one (1) baghouse, identified as MBH-12, and exhausting through one (1) stack, identified as M-12.
- (h) One (1) natural gas-fired burner for the dryer mill #2, with a heat input capacity of 20 MMBtu per hour, and exhausting through one (1) stack, identified as M-12.
- (i) One (1) screening station #2, with a maximum throughput of 35 tons per hour, with particulate matter emissions controlled by one (1) baghouse identified as MBH-12, and exhausting through one (1) stack, identified as M-12.
- (j) One (1) mill landplaster bin, with a maximum capacity of 20 tons, with particulate matter controlled by one (1) baghouse, identified as MBH-19, and exhausting through one stack, identified as M-19.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

#### Emission Limitations and Standards [326 IAC 2-7-5(1)]

#### D.2.1 Nonattainment Area Particulate Limitation [326 IAC 6-1-2]

Pursuant to 326 IAC 6-1-2 (Nonattainment Area Particulate Limitations), the PM emissions from landplaster production process shall be limited as follows:

(a) PM emissions from dryer mill #1 and associated screen exhausting to stack M-8 shall not exceed 0.03 grains per dry standard cubic foot (gr/dscf).

- (b) PM emissions from dryer mill #2 and associated screen exhausting to stack M-12 shall not exceed 0.03 grains per dry standard cubic foot (gr/dscf).
- (c) PM emissions from the landplaster bin exhausting to stack M-19 shall not exceed 0.03 grains per dry standard cubic foot (gr/dscf).
- (d) PM emissions from the conveying system exhausting to stack M-2 shall not exceed 0.03 grains per dry standard cubic foot (gr/dscf).
- (e) PM emissions from the natural gas-fired burners for dryer mills #1 and #2 exhausting to stacks M-8 and M-12 shall each not exceed 0.03 grains per dry standard cubic foot (gr/dscf).

#### D.2.2 Lake County PM<sub>10</sub> Emission Requirements [326 IAC 6-1-10.1]

Pursuant to 326 IAC 6-1-10.1 (Lake County PM<sub>10</sub> Emission Requirements), the PM<sub>10</sub> emissions from the landplaster conveying facility exhausting from stack M-2 shall not exceed 0.015 grains per dry standard cubic foot and 2.21 pounds per hour.

#### D.2.3 Emission Offset Minor PM Limit [326 IAC 2-3]

Pursuant to CP-089-8657-00333, issued on January 8, 1998, the PM emissions from dryer mill #2 and associated screen exhausting to stack M-12 shall not exceed 0.010 grains per dry standard cubic foot. Compliance with this limit makes 326 IAC 2-3 (Emission Offset) not applicable. Compliance with this limit will also satisfy the requirements of 326 IAC 6-1-2 (Nonattainment Area Particulate Limitations).

#### D.2.4 Emission Offset Minor NO<sub>x</sub> Limit [326 IAC 2-3]

Pursuant to CP-089-8657-00333, issued on January 8, 1998, natural gas throughput to the natural gas fired burner for dryer mill #2, exhausting to stack M-12, shall not exceed 172.8 million cubic feet per consecutive twelve (12) month period.

Compliance with this limit will assure that the  $NO_x$  emissions from the facilities permitted under CP-089-8657-00333, issued on January 8, 1998, shall remain less than twenty-five (25) tons per year and that the requirements of 326 IAC 2-3 are not applicable.

#### D.2.5 New Source Performance Standard [326 IAC 12] [40 CFR 60, Subpart OOO]

Pursuant to 40 CFR 60, Subpart OOO (Nonmetallic Mineral Processing Plants), PM emissions from the dryer mill #2 and associated screen exhausting to stack M-12 shall not exceed 0.05 grams per dry standard cubic meter (g/dscm) and seven percent (7%) opacity. Any fugitive emissions associated with these facilities shall not exceed ten percent (10%) opacity.

#### D.2.6 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for these facilities and their control devices.

#### **Compliance Determination Requirements**

#### D.2.7 Testing Requirements [326 IAC 2-7-6(1),(6)]

- (a) Pursuant to CP 089-8657-00333, issued on January 8, 1998, the Permittee shall perform compliance testing for PM from the dryer mill #2 and associated screen exhausting to stack M-12 within 60 days after achieving maximum production rate, but no later than 180 days after initial start-up. The tests shall be performed in accordance with Section C Performance Testing and 40 CFR 60.675.
- (b) The Permittee is not required to test the dryer mill #1 and associated screen exhausting to stack M-8 by this permit. However, IDEM may require compliance testing at any

specific time when necessary to determine if the facility is in compliance. If testing is required by IDEM, compliance with the PM limits specified in Condition D.2.1 shall be determined by a performance test conducted in accordance with Section C - Performance Testing.

#### D.2.8 Particulate Matter (PM)

Pursuant to OP 45-07-93-0510, issued on December 19, 1989, and CP-089-8657-00333, issued on January 8, 1998, the baghouses for PM control shall be in operation at all times when the associated facilities are in operation.

#### Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

#### D.2.9 Visible Emissions Notations

- (a) Visible emission notations of the stack exhausts M-2, M-8, M-12 and M-19 shall be performed once per shift during normal daylight operations when exhausting directly to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (e) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed.

#### D.2.10 Parametric Monitoring

The Permittee shall record the total static pressure drop across the baghouses used in conjunction with the landplaster production process, at least once per shift when the associated facilities are in operation when venting directly to the atmosphere.

- (a) Unless operated under conditions for which the Compliance Response Plan specifies otherwise, the pressure drop across baghouses MBH-2 and MBH-19 shall be maintained within the range of 0.5 and 6.0 inches of water, or a range established during the latest stack test.
- (b) Unless operated under conditions for which the Compliance Response Plan specifies otherwise, the pressure drop across baghouses MBH-8 and MBH-12 shall be maintained within the range of 2.0 and 8.0 inches of water, or a range established during the latest stack test.

The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when the pressure reading is outside of the above mentioned ranges for any one reading.

The instrument used for determining the pressure shall comply with Section C - Pressure Gauge Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.

#### D.2.11 Baghouse Inspections

An inspection shall be performed each calender quarter of all bags controlling the landplaster production process. All defective bags shall be replaced.

#### D.2.12 Broken or Failed Bag Detection

In the event that bag failure has been observed.

- (a) The affected compartments will be shut down immediately until the failed units have been repaired or replaced. Within eight (8) hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) hours of discovery of the failure and shall include a timetable for completion. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B Emergency Provisions).
- (b) For single compartment baghouses, failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

#### Record Keeping and Reporting Requirement [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

#### D.2.13 Record Keeping Requirements

- (a) To document compliance with Condition D.2.4, the Permittee shall maintain records of natural gas throughput to dryer mill #2.
- (b) To document compliance with Condition D.2.9, the Permittee shall maintain records of visible emission notations of the stack exhausts M-2, M-8, M-12 and M-19 once per shift.
- (c) To document compliance with Condition D.2.10, the Permittee shall maintain the following:
  - (1) Records of the following operational parameters taken once per shift during normal operation when venting directly to the atmosphere:
    - (A) Inlet and outlet differential static pressure; and
    - (B) Cleaning cycle: frequency and differential pressure.
  - (2) Documentation of all response steps implemented, per event.
  - (3) Operation and preventive maintenance logs, including work purchases orders, shall be maintained.
  - (4) Quality Assurance/Quality Control (QA/QC) procedures.
  - (5) Operator standard operating procedures (SOP).
  - (6) Manufacturer's specifications or its equivalent.
  - (7) Equipment "troubleshooting" contingency plan.

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- (8) Documentation of the dates vents are redirected.
- (d) To document compliance with Condition D.2.11, the Permittee shall maintain records of the results of the inspections required under Condition D.2.11.
- (e) All records shall be maintained in accordance with Section C General Record Keeping Requirements, of this permit.

#### D.2.14 Reporting Requirements

A quarterly summary of the information to document compliance with Condition 2.4 shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting form located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

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#### **SECTION D.3**

#### **FACILITY OPERATION CONDITIONS**

Facility Description [326 IAC 2-7-5(15)]

A stucco production process, consisting of the following equipment::

- (a) Two (2) kettle feed bins, known as kettle feed bin #1 and kettle feed bin #2, each with a maximum capacity of 60 tons, with particulate matter emissions controlled by two (2) baghouses, identified as MBH-20 and MBH-21, and exhausting through one (1) stack, identified as M-20.
- (b) One (1) calcining kettle, known as calcining kettle #1, with a maximum throughput of thirty (30) tons per hour, with particulate emissions controlled by one (1) baghouse, identified as MBH-22, and exhausting through one (1) stack, identified as M-22.
- (c) One (1) calcining kettle, known as calcining kettle #2, with a maximum throughput of 45 tons per hour, with particulate matter emissions controlled by one (1) baghouse, identified as MBH-16, and exhausting through one (1) stack, identified as M-16.
- (d) Three (3) natural gas-fired burners for calcining kettle #1, each with a heat input capacity of 5 MMBtu per hour, and exhausting through one (1) stack, identified as M-21.
- (e) Six (6) natural gas-fired burners for the calcining kettle #2, each with a heat input capacity of 5 MMBtu per hour, and exhausting through one (1) stack, identified as M-14.
- (f) One (1) kettle feed bin, known as kettle feed bin #3, with a maximum capacity of 60 tons, with particulate matter emissions controlled by one (1) baghouse, identified as MBH-8, and exhausting through one (1) stack, identified as M-8.
- (g) One (1) calcining kettle, known as calcining kettle #3, with a maximum throughput of 30 tons per hour, with particulate matter emissions controlled by one (1) baghouse, identified as MBH-1, and exhausting through one (1) stack, identified as M-1.
- (h) One (1) natural-gas fired burner for the calcining kettle #3, with a heat input capacity of 15 MMBtu per hour, and exhausting through one (1) stack, identified as M-6.
- (i) One (1) hot pit, known as hot pit #3, with a maximum throughput of 30 tons per hour, with particulate matter emissions controlled by one (1) baghouse, identified as MBH-1, and exhausting through one (1) stack, identified as M-1.
- (j) Miscellaneous stucco handling equipment, including one (1) #4 stucco elevator, one (1) #17 screw, and one (1) #17A screw, with a maximum throughput of 70 tons per hour, with particulate matter emissions controlled by partial or total enclosure, and exhausting to associated processes or directly to the atmosphere. Some portions of the stucco handling system are controlled by one (1) baghouse, identified as MBH-2, and exhausting through one (1) stack, identified as M-2.
- (k) Stucco storage equipment, including one (1) #49 screw, and one (1) #47 screw, with a maximum capacity of seventy (70) tons per hour, and three stucco storage bins, known as #1, #2 and #3, each with a capacity of 175 tons, with particulate emissions controlled by one (1) baghouse, identified as MBH-24, and exhausting through one (1) stack, identified as M-23.

A stucco production process, consisting of the following equipment:: (continued)

- (I) Stucco storage equipment, including one (1) #1 elevator and one (1) #27 screw, with a maximum capacity of seventy (70) tons per hour, and three (3) stucco storage bins, known as #4, #5 and #6, each with a capacity of 175 tons, with particulate emissions controlled by one (1) baghouse, identified as MBH-23, and exhausting through one (1) stack, identified as M-23.
- (m) One (1) stucco storage bin, with a maximum capacity of 50 tons, with particulate matter controlled by one (1) baghouse, identified as MBH-2, and exhausting through one (1) stack, identified as M-2.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

#### Emission Limitations and Standards [326 IAC 2-7-5(1)]

#### D.3.1 Nonattainment Area Particulate Limitation [326 IAC 6-1-2]

Pursuant to 326 IAC 6-1-2 (Nonattainment Area Particulate Limitations), the PM emissions from the stucco production process shall be limited as follows:

- (a) PM emissions from kettle feed bins #1, #2 and #3 exhausting to stacks M-8 and M-20 shall not exceed 0.03 grains per dry standard cubic foot (gr/dscf).
- (b) PM emissions from calcining kettle #1 exhausting to stack M-22 shall not exceed 0.03 grains per dry standard cubic foot (gr/dscf).
- (c) PM emissions from calcining kettle #2 exhausting to stack M-16 shall not exceed 0.03 grains per dry standard cubic foot (gr/dscf).
- (d) PM emissions from the natural gas-fired burners for kettle #1 exhausting to stack M-21 shall not exceed 0.03 grains per dry standard cubic foot (gr/dscf).
- (e) PM emissions from the natural gas-fired burners for kettle #2 exhausting to stack M-14 shall not exceed 0.03 grains per dry standard cubic foot (gr/dscf).
- (f) PM emissions from the natural gas-fired burner for kettle #3 exhausting to stack M-6 shall not exceed 0.03 grains per dry standard cubic foot (gr/dscf).
- (g) PM emissions from hot pit #3 exhausting to stack M-1 shall not exceed 0.03 grains per dry standard cubic foot (gr/dscf).
- (h) PM emissions from the stucco storage bin exhausting to stack M-2 shall not exceed 0.03 grains per dry standard cubic foot (gr/dscf).
- (i) PM emissions from the stucco storage bins #1 through #6, exhausting to stack M-23, shall not exceed 0.03 grains per dry standard cubic foot (gr/dscf).

#### D.3.2 Lake County PM<sub>10</sub> Emission Requirements [326 IAC 6-1-10.1]

Pursuant to 326 IAC 6-1-10.1 (Lake County  $PM_{10}$  Emission Requirements), the  $PM_{10}$  emissions shall be limited as follows:

(a) The PM<sub>10</sub> emissions from kettle #3 exhausting to stack M-1 shall not exceed 0.012 grains per dry standard cubic foot and 3.210 pounds per hour.

(b) The PM<sub>10</sub> emissions from the stucco handling system exhausting to stack M-2 shall not exceed 0.015 grains per dry standard cubic foot and 2.210 pounds per hour.

#### D.3.3 Emission Offset Minor PM Limit [326 IAC 2-3]

Pursuant to CP 089-8657-00333, issued on January 8, 1998, the PM emissions shall be limited as follows:

- (a) PM emissions from kettle #2 exhausting to stack M-16 shall not exceed 0.010 grains per dry standard cubic foot.
- (b) PM emissions from kettle feed bins #1, #2 and #3 exhausting to stacks M-8 and M-20 shall not exceed 0.008 grains per dry standard cubic foot.

Compliance with these limits make 326 IAC 2-3 (Emission Offset) not applicable. Compliance with these limits also will satisfy the requirements of 326 IAC 6-1-2 (Nonattainment Area Particulate Limitations) for these facilities.

#### D.3.4 Emission Offset Minor NO<sub>x</sub> Limit [326 IAC 2-3]

Pursuant to CP-089-8657-00333, issued on January 8, 1998, natural gas throughput to the six (6) natural gas fired burners for calcining kettle #2 shall not exceed 338.4 million cubic feet per consecutive twelve (12) month period, including natural gas throughput to the wet and dry end seal natural gas burners, and the gauging water heater, which are found in Section D.4.

Compliance with this limit will assure that the  $NO_X$  emissions from the facilities permitted under CP-089-8657-00333, issued on January 8, 1998 shall remain less than twenty-five (25) tons per year and that the requirements of 326 IAC 2-3 (Emission Offset) are not applicable.

#### D.3.5 New Source Performance Standard [326 IAC 12] [40 CFR 60, Subpart UUU]

Pursuant to 40 CFR 60, Subpart UUU (Calciners and Dryers in Mineral Industries), PM emissions from kettle #1 exhausting to stack M-22 and kettle #2 exhausting to stack M-16, shall not exceed 0.092 grams per dry standard cubic meter (g/dscm) and ten percent (10%) opacity.

#### D.3.6 New Source Performance Standard [326 IAC 12] [40 CFR 60, Subpart OOO]

Pursuant to 40 CFR 60, Subpart OOO (Standards of Performance for Nonmetallic Mineral Processing Plants), PM emissions from kettle feed bins #1 and #2, exhausting through stack M-20, as well as all stucco storage and handling equipment exhausting through stacks M-2 and M-23, shall not exceed 0.05 grams per dry standard cubic meter (g/dscm) and seven percent (7%) opacity.

#### D.3.7 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for these facilities and their control devices.

#### **Compliance Determination Requirements**

#### D.3.8 Testing Requirements [326 IAC 2-7-6(1),(6)]

- (a) To demonstrate compliance with 40 CFR 60, Subpart UUU (Calciners and Dryers in Mineral Industries), and Condition D.3.5, the Permittee shall perform compliance testing for PM and opacity from calcining kettle #1 exhausting through stack M-22, and calcining kettle #2, exhausting through stack M-16, within 60 days after achieving maximum production rate, but no later than 180 days after initial start-up. The tests shall be performed in accordance with Section C Performance Testing and 40 CFR 60.736.
- (b) To demonstrate compliance with 40 CFR 60, Subpart OOO (Standards of Performance

for Nonmetallic Mineral Processing Plants), and Condition D.3.6, the Permittee shall perform compliance testing for PM and opacity from kettle feed bins #1 and #2, exhausting through stack M-20, and the stucco storage and handling equipment exhausting through stacks M-2 and M-23, within 60 days after achieving maximum production rate, but no later than 180 days after initial start-up. The tests shall be performed in accordance with Section C - Performance Testing and 40 CFR 60.675.

(c) The Permittee is not required to test the remaining stucco production facilities by this permit. However, IDEM may require compliance testing at any specific time when necessary to determine if the facility is in compliance. If testing is required by IDEM, compliance with the limits specified in Conditions D.3.1 and D.3.2 shall be determined by a performance test conducted in accordance with Section C - Performance Testing.

#### D.3.9 Particulate Matter (PM)

The baghouses for PM control shall be in operation at all times when the associated facilities are in operation.

#### Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)] [40 CFR Part 64]

#### D.3.10 Visible Emissions Notations

- (a) Visible emission notations of the stack exhausts M-1, M-2, M-8, M-16, M-20, M-22 and M-23 shall be performed once per shift during normal daylight operations when exhausting directly to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (e) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed.

#### D.3.11 Parametric Monitoring

The Permittee shall record the total static pressure drop across the baghouses used in conjunction with the stucco production process, at least once per shift when the associated facilities are in operation when venting directly to the atmosphere.

- (a) Unless operated under conditions for which the Compliance Response Plan specifies otherwise, the pressure drop across baghouses MBH-1, MBH-2, MBH-16, MBH-20, MBH-21, MBH-22, MBH-23 and MBH-24 shall be maintained within the range of 0.5 and 6.0 inches of water, or a range established during the latest stack test.
- (b) Unless operated under conditions for which the Compliance Response Plan specifies otherwise, the pressure drop across baghouse MBH-8 shall be maintained within the range of 2.0 and 8.0 inches of water, or a range established during the latest stack test.

response steps for when the pressure reading is outside of the above mentioned range for any one reading.

The instrument used for determining the pressure shall comply with Section C - Pressure Gauge Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.

#### D.3.12 Baghouse Inspections

An inspection shall be performed each calender quarter of all bags controlling the stucco production process. All defective bags shall be replaced.

#### D.3.13 Broken or Failed Bag Detection

In the event that bag failure has been observed.

- (a) The affected compartments will be shut down immediately until the failed units have been repaired or replaced. Within eight (8) hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) hours of discovery of the failure and shall include a timetable for completion. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B Emergency Provisions).
- (b) For single compartment baghouses, failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

#### Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

#### D.3.14 Record Keeping Requirements

- (a) To document compliance with Condition D.3.4, the Permittee shall maintain records of natural gas throughput to the six (6) natural gas fired burners for calcining kettle #2.
- (b) To document compliance with Condition D.3.10, the Permittee shall maintain records of visible emission notations of the stack exhausts M-1, M-2, M-8, M-16, M-20, M-22 and M-23 once per shift.
- (c) To document compliance with Condition D.3.11, the Permittee shall maintain the following:
  - (1) Records of the following operational parameters taken once per shift during normal operation when venting directly to the atmosphere:
    - (A) Inlet and outlet differential static pressure; and
    - (B) Cleaning cycle: frequency and differential pressure.
  - (2) Documentation of all response steps implemented, per event.
  - (3) Operation and preventive maintenance logs, including work purchases orders, shall be maintained.

- (4) Quality Assurance/Quality Control (QA/QC) procedures.
- (5) Operator standard operating procedures (SOP).
- (6) Manufacturer's specifications or its equivalent.
- (7) Equipment "troubleshooting" contingency plan.
- (8) Documentation of the dates vents are redirected.
- (d) To document compliance with Condition D.3.12, the Permittee shall maintain records of the results of the inspections required under Condition D.3.12.
- (e) All records shall be maintained in accordance with Section C General Record Keeping Requirements, of this permit.

#### D.3.15 Reporting Requirements

A quarterly summary of the information to document compliance with Condition 3.4 shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting form located at the end of this permit, or an equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

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#### **SECTION D.4**

#### **FACILITY CONDITIONS**

Facility Description [326 IAC 2-7-5(15)]

A gypsum wallboard manufacturing line, consisting of the following equipment:

- (a) One (1) stucco storage bin, with a maximum capacity of 1200 tons, with particulate matter controlled by one (1) bin vent, identified as BBH-11, and exhausting through one (1) stack, identified as B-11.
- (b) One (1) stucco surge bin with hopper, with a maximum capacity of 2 tons, with particulate matter controlled by one (1) baghouse, identified as BBH-13, and exhausting through one (1) stack, identified as B-13.
- (c) One (1) (HRA) landplaster feed bin, with a maximum capacity of 20 tons, with particulate matter emissions controlled by one (1) bin vent, identified as BBH-12, and exhausting inside the building through one (1) stack, identified as B-12.
- (d) One (1) HRA mill additive bin (sugar), with a maximum capacity of 10 cubic feet, feeding the HRA ball mill, with particulate matter emissions uncontrolled, and exhausting inside the building.
- (e) One (1) HRA ball mill, with a maximum throughput of 2400 pounds per hour, with particulate matter controlled by one (1) baghouse, identified as BBH-18, and exhausting inside the building through one (1) stack, identified as B-18.
- (f) One (1) HRA bin, with a maximum capacity of 3 tons, with particulate matter controlled by one (1) baghouse, identified as BBH-13, and exhausting through one (1) stack, identified as B-13.
- (g) One (1) additive refill bin (starch), with a maximum capacity of 3 tons, with particulate matter controlled by one (1) baghouse, identified as BBH-16, and exhausting inside the building through one (1) stack, identified as B-16.
- (h) One (1) additive refill receiver (vermiculite), controlled by one (1) vacuum receiver, identified as BVH-17, and exhausting inside the building through one (1) stack, identified as B-17.
- (i) Two (2) additive bulk storage bins (starch and vermiculite), each with a maximum capacity of 75 tons, with particulate matter emissions controlled by two (2) separate baghouses, identified as BBH-14 (starch) and BBH-15 (vermiculite), and all exhausting to two (2) respective stacks, identified as B-14 and B-15.
- (j) One (1) additive surge bin (vermiculite), with a maximum capacity of 5 tons, with particulate matter controlled by one (1) baghouse, identified as BBH-13, and exhausting through one (1) stack, identified as B-13.
- (k) One (1) glass fiber additive bin, with a maximum capacity of six (6) cubic feet, with particulate matter emissions uncontrolled, and exhausting inside the building.
- (I) One (1) paper fiber mill with cyclone separator, with a maximum throughput of 900 pounds per hour, with particulate matter emissions controlled by one (1) baghouse, identified as BBH-13, and exhausting through one (1) stack, identified as B-13.

A gypsum wallboard manufacturing line, consisting of the following equipment: (cont'd)

- (m) One (1) mixing screw conveyor, with a maximum throughput of 60 tons per hour, with particulate matter emissions controlled by one (1) baghouse, identified as BBH-13, and exhausting through one (1) stack, identified as B-13.
- (n) One (1) natural gas-fired gauging water heater, with a heat input capacity of 3.5 MMBtu per hour, and exhausting through one (1) stack, identified as B-19.
- (o) One (1) wet mixer, with particulate matter emissions controlled by one (1) baghouse, identified as BBH-13, and exhausting through one (1) stack, identified as B-13.
- (p) One (1) wet zone kiln natural gas-fired burner, with a heat input capacity of 67 MMBtu per hour, and exhausting through one (1) stack, identified as B-20.
- (q) One (1) dry zone kiln natural gas-fired burner, with a heat input capacity of 67 MMBtu per hour, and exhausting through one (1) stack, identified as B-20.
- (r) One (1) wet end seal natural gas-fired burner, with a heat input capacity of 2.5 MMBtu per hour, and exhausting through one (1) stack, identified as B-20.
- (s) One (1) dry end seal natural gas-fired burner, with a heat input capacity of 2.5 MMBtu per hour, and exhausting through one (1) stack, identified as B-20.
- (t) One (1) wallboard drying kiln, with a maximum throughput of 78,000 square feet of wallboard per hour, and exhausting through one (1) main stack, identified as B-20.
- (u) One (1) end saw, with a maximum throughput of 78,000 square feet of wallboard per hour, with particulate matter emissions controlled by one (1) baghouse, identified as BBH-25, and exhausting through one (1) stack, identified as B-25.
- (v) One (1) waste reclaim shredder, with a maximum throughput of 50 tons per hour, with particulate matter controlled by two (2) baghouses identified as WRBH-1 and WRBH-2, and exhausting through two (2) stacks, identified as WR-1 and WR-2, respectively.
- (w) One (1) existing cut-back saw, with particulate matter controlled by one (1) baghouse, identified as BBH-25, and exhausting through one (1) stack, identified as B-25.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

#### Emission Limitations and Standards [326 IAC 2-7-5(1)]

#### D.4.1 Emission Offset Minor PM Limit [326 IAC 2-3]

Pursuant to CP-089-8657-00333, issued on January 8, 1998, the PM emissions shall be limited as follows:

- (a) PM emissions from the stucco storage bin exhausting to stack B-11 shall not exceed 0.008 grains per dry standard cubic foot.
- (b) PM emissions from the landplaster feed bin exhausting to stack B-12 shall not exceed 0.008 grains per dry standard cubic foot.
- (c) PM emissions from the HRA mill additive bin (sugar) exhausting inside the building shall

not exceed 0.010 grains per dry standard cubic foot.

- (d) PM emissions from the HRA ball mill exhausting to stack B-18 shall not exceed 0.010 grains per dry standard cubic foot.
- (e) PM emissions from the dry additive system exhausting to stack B-13 shall not exceed 0.008 grains per dry standard cubic foot.
- (f) PM emissions from the additive storage bin vacuum receivers and additive refill vacuum receivers exhausting to stacks B-14, B-15, B-16 and B-17 shall not exceed 0.008 grains per dry standard cubic foot.
- (g) PM emissions from the end saws exhausting to stack B-25 shall not exceed 0.008 grains per dry standard cubic foot.

Compliance with these limits make 326 IAC 2-3 (Emission Offset) not applicable. Compliance with these limits will also satisfy the requirements of 326 IAC 6-1-2 (Nonattainment Area Particulate Limitations) for these facilities.

#### D.4.2 Nonattainment Area Particulate Limitation [326 IAC 6-1-2]

Pursuant to 326 IAC 6-1-2 (Nonattainment Area Particulate Limitations), the PM emissions from the new gypsum wallboard line shall be limited as follows:

- (a) PM emissions from the stucco storage bin exhausting to stack B-11 shall not exceed 0.03 grains per dry standard cubic foot (gr/dscf).
- (b) PM emissions from the landplaster feed bin exhausting to stack B-12 shall not exceed 0.03 grains per dry standard cubic foot (gr/dscf).
- (c) PM emissions from the HRA mill additive bin (sugar) exhausting inside the building shall not exceed 0.03 grains per dry standard cubic foot (gr/dscf).
- (d) PM emissions from the HRA ball mill exhausting to stack B-18 shall not exceed 0.03 grains per dry standard cubic foot (gr/dscf).
- (e) PM emissions from the dry additive system exhausting to stack B-13 shall not exceed 0.03 grains per dry standard cubic foot (gr/dscf).
- (f) PM emissions from the additive storage bin vacuum receivers and additive refill vacuum receivers exhausting to stacks B-14, B-15, B-16 and B-17 shall not exceed 0.03 grains per dry standard cubic foot (gr/dscf).
- (g) PM emissions from the wallboard drying kiln exhausting to stack B-20 shall not exceed 0.03 grains per dry standard cubic foot (gr/dscf).
- (h) PM emissions from the natural gas-fired burners exhausting to stack B-20 shall not exceed 0.03 grains per dry standard cubic foot (gr/dscf).
- (i) PM emissions from the natural gas-fired gauging water heater exhausting to stack B-19 shall not exceed 0.03 grains per dry standard cubic foot (gr/dscf).
- (j) PM emissions from the end saws exhausting to stack B-25 shall not exceed 0.03 grains per dry standard cubic foot (gr/dscf).
- (k) PM emissions from the waste wallboard shredder exhausting to stacks WR-1 and WR-2

shall not exceed 0.03 grains per dry standard cubic foot (gr/dscf).

(I) PM emissions from the cut back saw exhausting to stack B-25 shall not exceed 0.03 grains per dry standard cubic foot (gr/dscf).

#### D.4.3 Emission Offset Minor NO<sub>x</sub> Limit [326 IAC 2-3]

Pursuant to CP-089-8657-00333, issued on January 8, 1998, natural gas throughput shall be limited as follows:

- (a) Natural gas throughput to the wet zone kiln and dry zone kiln natural gas burners, both exhausting to stack B-20, shall not exceed 1155.6 million cubic feet per consecutive twelve (12) month period.
- (b) Natural gas throughput to the gauging water heater exhausting to stack B-19, and the wet end seal and dry end seal natural gas burners, exhausting to stack B-20, shall not exceed 338.4 million cubic feet per consecutive twelve (12) month period, including natural gas throughput to the six (6) natural gas fired burners for calcining kettle # 2, found in Section D.2.

Compliance with these limits will assure that the  $NO_{\chi}$  emissions from the facilities permitted under CP-089-8657-00333, issued on January 8, 1998 shall remain less than twenty-five (25) tons per year and that the requirements of 326 IAC 2-3 are not applicable.

#### D.4.4 New Source Performance Standard [326 IAC 12] [40 CFR 60, Subpart OOO]

Pursuant to 40 CFR 60, Subpart OOO (Nonmetallic Mineral Processing Plants), PM emissions from the waste wallboard shredder exhausting to stacks WR-1 and WR-2 shall not exceed 0.05 grams per dry standard cubic meter (g/dscm) and seven percent (7%) opacity. Any fugitive emissions associated with these facilities shall not exceed ten percent (10%) opacity.

#### D.4.5 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for these facilities and their control devices.

#### **Compliance Determination Requirements**

#### D.4.6 Testing Requirements [326 IAC 2-7-6(1),(6)]

- (a) Pursuant to CP 089-8657-00333, issued on January 8, 1998, the Permittee shall perform compliance testing for PM from the stucco storage bin exhausting to stack B-11, the dry additive system exhausting to stack B-13, the various saws exhausting to stack B-25, and the waste wallboard shredder exhausting to stacks WR-1 and WR-2, within 60 days after achieving maximum production rate, but no later than 180 days after initial start-up. The tests shall be performed in accordance with Section C Performance Testing and 40 CFR 60.675 (for the waste wallboard shredder).
- (b) The Permittee is not required to test the remaining wallboard production facilities by this permit. However, IDEM may require compliance testing at any specific time when necessary to determine if the facilities are in compliance. If testing is required by IDEM, compliance with the PM limits specified in Conditions D.4.1 and D.4.2 shall be determined by a performance test conducted in accordance with Section C Performance Testing.

#### D.4.7 Particulate Matter (PM)

Pursuant to CP 089-7755-00333, issued on February 19, 1997, and CP 089-8657-000333, issued on January 8, 1998, the baghouses for PM control shall be in operation at all times when the associated facilities are in operation.

#### Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

#### D.4.8 Visible Emissions Notations

- (a) Visible emission notations of the stack exhausts B-11 through B-18, B-25, WR-1 and WR-2, shall be performed once per shift during normal daylight operations when exhausting directly to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (e) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed.

#### D.4.9 Parametric Monitoring

The Permittee shall record the total static pressure drop across the baghouses used in conjunction with the wallboard production process, at least once per shift when the associated facilities are in operation when venting directly to the atmosphere. Unless operated under conditions for which the Compliance Response Plan specifies otherwise, the pressure drop across the baghouses shall be maintained within the range of 0.5 and 6.0 inches of water or a range established during the latest stack test. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when the pressure reading is outside of the above mentioned range for any one reading.

The instrument used for determining the pressure shall comply with Section C - Pressure Gauge Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.

#### D.4.10 Baghouse Inspections

An inspection shall be performed each calender quarter of all bags controlling the new wallboard production process. All defective bags shall be replaced.

#### D.4.11 Broken or Failed Bag Detection

In the event that bag failure has been observed.

- (a) The affected compartments will be shut down immediately until the failed units have been repaired or replaced. Within eight (8) hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) hours of discovery of the failure and shall include a timetable for completion. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B Emergency Provisions).
- (b) For single compartment baghouses, failed units and the associated process will be shut

down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

#### Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

#### D.4.12 Record Keeping Requirements

- (a) To document compliance with Condition D.4.3, the Permittee shall maintain records of natural gas throughput to the wet zone kiln and dry zone kiln natural gas burners, the gauging water heater, and the wet end seal and dry end seal natural gas burners.
- (b) To document compliance with Condition D.4.8, the Permittee shall maintain records of visible emission notations of the stack exhausts B-11 through B-18, B-25, WR-1 and WR-2, once per shift.
- (c) To document compliance with Condition D.4.9, the Permittee shall maintain the following:
  - (1) Records of the following operational parameters taken once per shift during normal operation when venting directly to the atmosphere:
    - (A) Inlet and outlet differential static pressure; and
    - (B) Cleaning cycle: frequency and differential pressure.
  - (2) Documentation of all response steps implemented, per event.
  - (3) Operation and preventive maintenance logs, including work purchases orders, shall be maintained.
  - (4) Quality Assurance/Quality Control (QA/QC) procedures.
  - (5) Operator standard operating procedures (SOP).
  - (6) Manufacturer's specifications or its equivalent.
  - (7) Equipment "troubleshooting" contingency plan.
  - (8) Documentation of the dates vents are redirected.
- (d) To document compliance with Condition D.4.10, the Permittee shall maintain records of the results of the inspections required under Condition D.4.10.
- (e) All records shall be maintained in accordance with Section C General Record Keeping Requirements, of this permit.

#### D.4.13 Reporting Requirements

A quarterly summary of the information to document compliance with Condition 4.3 shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting form located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

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#### **SECTION D.5**

#### **FACILITY OPERATION CONDITIONS**

Facility Description [326 IAC 2-7-5(15)]

A joint treatment process, consisting of the following equipment:

- (a) A pneumatic conveying system from the bulk storage silos to the scale hoppers, with particulate matter emissions controlled by three (3) baghouses, identified as JBH-11, JBH-12 and JBH-13, and exhausting through three (3) stacks, identified as J-11, J-12 and J-13, respectively.
- (b) Four (4) scale hoppers, with particulate matter emissions uncontrolled, and exhausting inside the building.
- (c) A ready-mix line, consisting of the following equipment:
  - (1) Two (2) holding hoppers, each with a maximum throughput of 5 tons per hour, with particulate matter emissions controlled by two (2) baghouses, identified as JBH-1 and JBH-2, and each exhausting through two (2) stacks, identified as J-1 and J-2, respectively.
  - (2) One (1) dry additives bag dump, with a maximum throughput of 1176 pounds per hour, with particulate matter controlled by three (3) baghouses, identified as JBH-1, JBH-2 and JVH-3, and exhausting through three (3) stacks, identified as J-1, J-2 and J-3, respectively.
  - (3) Two (2) wet mixers, each with a maximum throughput of 7.25 tons per hour, and exhausting inside the building.
- (d) A dry joint compound line, consisting of the following equipment:
  - (1) One (1) dry additives bag dump, with a maximum throughput of 600 pounds per hour, with particulate matter emissions controlled by one (1) baghouse, identified as JVH-8, and exhausting through one (1) stack, identified as J-8.
  - One (1) reclaim screw conveyor, with a maximum throughput of 1,184 pounds per hour, with particulate matter emissions controlled by one (1) baghouse, identified as JBH-7, and exhausting through one (1) stack, identified as J-7.
  - One (1) dry joint mixer, with a maximum throughput of 5,678 pounds per hour, with particulate matter emissions controlled by one (1) baghouse, identified as JBH-7, and exhausting through one (1) stack, identified as J-7.
  - (4) One (1) packing machine, with a maximum throughput of 5,100 pounds per hour, with particulate matter emissions controlled by one (1) baghouse, identified as JBH-14, and exhausting inside the building through stack J-14.
- (e) A dry texture paint line, consisting of the following equipment:
  - (1) One (1) dry additives bag dump, with a maximum throughput of 390 pounds per hour, with particulate matter emissions controlled by one (1) baghouse, identified as JBH-5, and exhausting through one (1) stack, identified as J-5.

#### Facility Description [326 IAC 2-7-5(15)]

A dry texture paint line, consisting of the following equipment (cont'd):

- (2) One (1) reclaim screw conveyor, with maximum throughput of 502 pounds per hour, and a polystyrene screw conveyor, with a maximum capacity of 75 pounds per hour, with particulate matter emissions controlled by one (1) baghouse, identified as JBH-4, and exhausting through one (1) stack, identified as J-4.
- One (1) dry texture paint mixer, with a maximum throughput of 4650 pounds per hour, with particulate matter emissions controlled by one (1) baghouse, identified as JBH-4, and exhausting through one (1) stack, identified as J-4.
- (4) One (1) packing machine, with a maximum throughput of 4650 pounds per hour, with particulate matter emissions controlled by one (1) baghouse, identified as JBH-4, and exhausting through one (1) stack, identified as J-4.
- (5) One (1) dry paint weigh station, with particulate matter emissions controlled by one (1) baghouse, identified as JBH-15, and exhausting through one (1) stack, identified as J-15 inside the building.
- (6) One (1) dry additive conveying system, with a maximum throughput of 400 pounds per hour, with particulate emissions controlled by one (1) vacuum receiver, identified as JVH-6, and exhausting through one (1) stack, identified as J-6.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

#### Emission Limitations and Standards [326 IAC 2-7-5(1)]

#### D.5.1 Lake County PM<sub>10</sub> Emission Requirements [326 IAC 6-1-10.1]

Pursuant to 326 IAC 6-1-10.1 (Lake County PM<sub>10</sub> Emission Requirements), the PM<sub>10</sub> emissions from the dry treatment process facilities shall be limited as follows:

- (a) PM<sub>10</sub> emissions from the ready mix hoppers and bag dump exhausting to stacks J-1, J-2 and J-3 shall each not exceed 0.017 pounds per ton and 0.100 pounds per hour.
- (b) PM<sub>10</sub> emissions from the dry texture paint mixer and packing machine exhausting to stack J-4 shall not exceed 0.020 grains per dry standard cubic foot and 0.190 pounds per hour.
- (c) PM<sub>10</sub> emissions from the dry texture paint bag dump exhausting to stack J-5 shall not exceed 0.010 grains per dry standard cubic foot and 0.100 pounds per hour.
- (d) PM<sub>10</sub> emissions from the dry texture paint conveying exhausting to stack J-6 shall not exceed 0.010 grains per dry standard cubic foot and 0.030 pounds per hour.
- (e) PM<sub>10</sub> emissions from the dry joint mixing and conveying exhausting to stack J-7 shall not exceed 0.020 grains per dry standard cubic foot and 0.340 pounds per hour.
- (f) PM<sub>10</sub> emissions from the dry joint bag dump exhausting to stack J-8 shall not exceed 0.010 grains per dry standard cubic foot and 0.020 pounds per hour.

#### D.5.2 Nonattainment Area Particulate Limitation [326 IAC 6-1-2]

Pursuant to 326 IAC 6-1-2 (Nonattainment Area Particulate Limitations), the PM emissions from the packing machine exhausting to stack J-14 and the dry paint weigh station exhausting to stack J-15 shall not exceed 0.03 grains per dry standard cubic foot (gr/dscf).

#### D.5.3 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for these facilities and their control devices.

#### **Compliance Determination Requirements**

#### D.5.4 Testing Requirements [326 IAC 2-7-6(1),(6)]

- (a) The Permittee shall perform compliance testing for PM<sub>10</sub> from the ready mix hopper #1 exhausting to stack J-1 within 12 months after issuance of this permit. The tests shall be performed in accordance with Section C Performance Testing.
- (b) The Permittee is not required to test the ready mix hopper #2 or bag dump, the dry texture paint mixing and packing, bag dump or conveying, or the dry joint mixing and packing or bag dump by this permit. However, IDEM may require compliance testing at any specific time when necessary to determine if the facilities are in compliance. If testing is required by IDEM, compliance with the PM and PM<sub>10</sub> limits specified in Conditions D.5.1 and D.5.2 shall be determined by a performance test conducted in accordance with Section C Performance Testing.

#### D.5.5 Particulate Matter (PM)

Pursuant to OP 45-07-93-0516, OP 45-07-93-0517 and OP 45-07-93-0518, issued on December 19, 1989, the baghouses for PM control shall be in operation at all times when the associated facilities are in operation.

#### Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

#### D.5.6 Visible Emissions Notations

- (a) Visible emission notations of the stack exhausts J-1, J-2, J-3, J-4, J-5, J-6, J-7, J-8, J-11, J-12, J-13, J-14 and J-15 shall be performed once per shift during normal daylight operations when exhausting directly to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (e) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed.

#### D.5.7 Parametric Monitoring

The Permittee shall record the total static pressure drop across the baghouses used in conjunction with the joint treatment processes, at least once per shift when the associated facilities are in operation when venting directly to the atmosphere. Unless operated under conditions for which the Compliance Response Plan specifies otherwise, the pressure drop across the baghouses shall be maintained within the range of 0.5 and 6.0 inches of water or a range established during the latest stack test. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when the pressure reading is outside of the above mentioned range for any one reading.

The instrument used for determining the pressure shall comply with Section C - Pressure Gauge Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.

#### D.5.8 Baghouse Inspections

An inspection shall be performed each calender quarter of all bags controlling the joint treatment processes. All defective bags shall be replaced.

#### D.5.9 Broken or Failed Bag Detection

In the event that bag failure has been observed.

- (a) The affected compartments will be shut down immediately until the failed units have been repaired or replaced. Within eight (8) hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) hours of discovery of the failure and shall include a timetable for completion. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B Emergency Provisions).
- (b) For single compartment baghouses, failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

#### Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

#### D.5.10 Record Keeping Requirements

- (a) To document compliance with Condition D.5.6, the Permittee shall maintain records of visible emission notations of the stack exhausts J-1, J-2, J-3, J-4, J-5, J-6, J-7, J-8, J-11, J-12, J-13, J-14 and J-15 once per shift.
- (b) To document compliance with Condition D.5.7, the Permittee shall maintain the following:
  - (1) Records of the following operational parameters taken once per shift during normal operation when venting directly to the atmosphere:
    - (A) Inlet and outlet differential static pressure; and
    - (B) Cleaning cycle: frequency and differential pressure.

- (2) Documentation of all response steps implemented, per event.
- (3) Operation and preventive maintenance logs, including work purchases orders, shall be maintained.
- (4) Quality Assurance/Quality Control (QA/QC) procedures.
- (5) Operator standard operating procedures (SOP).
- (6) Manufacturer's specifications or its equivalent.
- (7) Equipment "troubleshooting" contingency plan.
- (8) Documentation of the dates vents are redirected.
- (c) To document compliance with Condition D.5.8, the Permittee shall maintain records of the results of the inspections required under Condition D.5.8.
- (d) All records shall be maintained in accordance with Section C General Record Keeping Requirements, of this permit.

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#### **SECTION D.6**

#### **FACILITY OPERATION CONDITIONS**

Facility Description [326 IAC 2-7-5(15)]

The following insignificant activities:

- (a) Degreasing operations that do not exceed 145 gallons per 12 months, except if subject to 326 IAC 20-6.
- (b) The following equipment related to manufacturing activities not resulting in the emission of HAPs: brazing equipment, cutting torches, soldering equipment, welding equipment.
- (c) One (1) landplaster baler, with particulate matter emissions uncontrolled, and exhausting directly to the atmosphere.
- (d) A polypropylene bag grinding process, consisting of the following equipment:
  - (1) A bag storage and conveying system, with two (2) bins and two (2) screw conveyors, with negligible emissions, and exhausting inside the building.
  - (2) Two (2) polypropylene bags grinding machines, each with a maximum throughput of 20 pounds per hour, with particulate matter emissions controlled by partial enclosure, and exhausted to the ground polypropylene bins.
  - (3) Three (3) ground polypropylene bins with screens, with a combined maximum capacity of 360 cubic feet, with particulate matter emissions uncontrolled, and exhausting inside the building.
  - (4) One (1) weigh feeder, with a maximum throughput of 47 pounds per hour, with particulate matter emissions uncontrolled, and exhausting inside the building.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

#### Emission Limitations and Standards [326 IAC 2-7-5(1)]

#### D.6.1 Volatile Organic Compounds (VOC) [326 IAC 8-3-2]

Pursuant to 326 IAC 8-3-2 (Cold Cleaner Operations), the owner or operator shall:

- (a) Equip the cleaner with a cover;
- (b) Equip the cleaner with a facility for draining cleaned parts;
- (c) Close the degreaser cover whenever parts are not being handled in the cleaner;
- (d) Drain cleaned parts for at least fifteen (15) seconds or until dripping ceases;
- (e) Provide a permanent, conspicuous label summarizing the operation requirements;
- (f) Store waste solvent only in covered containers and not dispose of waste solvent or transfer it to another party, in such a matter that greater than twenty percent (20%) of the waste solvent (by weight) can evaporate into the atmosphere.

Second Significant Permit Modification No. 089-16805 Permit Reviewer: Patrick Brennan/MES

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#### D.6.2 Nonattainment Area Particulate Limitation [326 IAC 6-1-2]

Pursuant to 326 IAC 6-1-2 (Nonattainment Area Particulate Limitations), the PM emissions from the welding equipment, landplaster baler, and polypropylene bag grinding process shall not exceed 0.03 grains per dry standard cubic foot (gr/dscf).

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#### INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT **OFFICE OF AIR QUALITY COMPLIANCE BRANCH**

#### **PART 70 OPERATING PERMIT CERTIFICATION**

United States Gypsum Company Source Name:

301 Riley Road, East Chicago, Indiana 46312 Source Address: 301 Riley Road, East Chicago, Indiana 46312 Mailing Address:

	•	T 089-7532-00333		
This certification shall be included when submitting monitoring, testing reports/results or other documents as required by this permit.				
	Please check what	document is being certified:		
9	Annual Complianc	e Certification Letter		
9	Test Result (specif	y)		
9	Report (specify)			
9	Notification (specif	y)		
9	Other (specify)			
I certify that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.				
Signature:				
Printed Name:				
Title/Position:				
Dat	te:			

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### INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT OFFICE OF AIR QUALITY

COMPLIANCE BRANCH
P.O. Box 6015
100 North Senate Avenue
Indianapolis, Indiana 46206-6015
Phone: 317-233-5674

Fax: 317-233-5967

### PART 70 OPERATING PERMIT EMERGENCY/DEVIATION OCCURRENCE REPORT

Source Name: United States Gypsum Company

Source Address: 301 Riley Road, East Chicago, Indiana 46312 Mailing Address: 301 Riley Road, East Chicago, Indiana 46312

Part 70 Permit No.: T 089-7532-00333

#### This form consists of 2 pages

Page 1 of 2

Check either No. 1 or No.2			
9	1.	This is an emergency as defined in 326 IAC 2-7-1(12) CThe Permittee must notify the Office of Air Quality (OAQ), within four (4) business hours (1-800-451-6027 or 317-233-5674, ask for Compliance Section); and CThe Permittee must submit notice in writing or by facsimile within two (2) days (Facsimile Number: 317-233-5967), and follow the other requirements of 326 IAC 2-7-16	
9	2.	This is a deviation, reportable per 326 IAC 2-7-5(3)(c)	

CThe Permittee must submit notice in writing within ten (10) calendar days

If any of the following are not applicable, mark N/A

Facility/Equipment/Operation:
Control Equipment:
Permit Condition or Operation Limitation in Permit:
Description of the Emergency/Deviation:
Describe the cause of the Emergency/Deviation:

#### Second Significant Permit Modification No. 089-16805 Permit Reviewer: Patrick Brennan/MES

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If any of the following are not applicable, mark N/A	Page 2 of 2
Date/Time Emergency/Deviation started:	
Date/Time Emergency/Deviation was corrected:	
Was the facility being properly operated at the time of the emergency/deviation? Y Describe:	N
Type of Pollutants Emitted: TSP, PM-10, SO <sub>2</sub> , VOC, NO <sub>x</sub> , CO, Pb, other:	
Estimated amount of pollutant(s) emitted during emergency/deviation:	
Describe the steps taken to mitigate the problem:	
Describe the corrective actions/response steps taken:	
Describe the measures taken to minimize emissions:	
If applicable, describe the reasons why continued operation of the facilities are necess imminent injury to persons, severe damage to equipment, substantial loss of capital in loss of product or raw materials of substantial economic value:	
Form Completed by: Title / Position: Date: Phone:	<u></u>

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# INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT OFFICE OF AIR QUALITY COMPLIANCE DATA SECTION

#### Part 70 Quarterly Report

O N	11 1 101 1 0	•
Source Name:	United States Gypsum	Corporation

Source Address: 301 Riley Road, East Chicago, Indiana 46312 Mailing Address: 301 Riley Road, East Chicago, Indiana 46312

Part 70 Permit No.: T 089-7532-00333

Facility: Dryer Mill # 2 (Condition D.2.4)
Parameter: Natural Gas Throughput

Limit: Less than 172.8 million cubic feet per consecutive twelve (12) month period

Month	Natural Gas Throughput (million cubic feet)		
	This Month	Previous 11 Months	12 Month Total

- 9 No deviation occurred in this month.
- 9 Deviation/s occurred in this month.

Deviation has been reported on:

Submitted by:

Title/Position:

Signature:

Date:

Phone:

Attach a signed certification to complete this report.

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# INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT OFFICE OF AIR QUALITY COMPLIANCE DATA SECTION

#### Part 70 Quarterly Report

Source Name:  Source Address:  Source Address:  Mailing Address:  Part 70 Permit No.:  Facility:  Source Address:  Part 70 Permit No.:  Facility:  Source Address:  Part 70 Permit No.:  Facility:  Source Address:  On Riley Road, East Chicago, Indiana 46312  To 89-7532-00333  Six (6) natural gas fired burners for calcining kettle #2 (Condition D.3.4)  Gauging water heater, wet end seal and dry end seal burners (Condition D.4.3)  Natural Gas Throughput  Less than 338.4 million cubic feet per consecutive twelve (12) month period  YEAR:  YEAR:				
Month	Natural Gas Throughput (million cubic feet)			
	This Month	Previous 11 Months	12 Month Total	
9 No deviation occurred in this month.				
9 Deviation/s occurred in this month.				
Deviation has been reported on:				
Sub	mitted by:			
_	nature:			
Date	e:			

Attach a signed certification to complete this report.

Phone:

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# INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT OFFICE OF AIR QUALITY COMPLIANCE DATA SECTION

#### Part 70 Quarterly Report

Source Name: United States Gypsum Corporation Source Address: 301 Riley Road, East Chicago, Indiana 46312 Mailing Address: 301 Riley Road, East Chicago, Indiana 46312 Part 70 Permit No.: T 089-7532-00333 Facility: Wet Zone Kiln and Dry Zone Kiln Gas Burners (Condition D.4.3) Parameter: Natural Gas Throughput Limit: Less than 1156.6 million cubic feet per consecutive twelve (12) month period						
	YEAR:					
Month Natural Gas Throughput (mill			cubic feet)			
	This Month	Previous 11 Months	12 Month Total			
9 No deviation occurred in this month.						
9	9 Deviation/s occurred in this month.					
Deviation has been reported on:						
Sub	mitted by:					
Title	Title/Position:					

Attach a signed certification to complete this report.

Signature:

Date: Phone:

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# INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT OFFICE OF AIR QUALITY COMPLIANCE DATA SECTION

### PART 70 OPERATING PERMIT SEMI-ANNUAL COMPLIANCE MONITORING REPORT

Source Name: United States Gypsum Company Source Address: 301 Riley Road, East Chicago, Indiana 46312 Mailing Address: 301 Riley Road, East Chicago, Indiana 46312 Part 70 Permit No.: T089-7532-00333					
N	Months:	to	Year:		
This report is an affirmation that the source has met all the compliance monitoring requirements stated in this permit. This report shall be submitted semi-annually. Any deviation from the compliance monitoring requirements and the date(s) of each deviation must be reported. Additional pages may be attached if necessary. This form can be supplemented by attaching the Emergency/Deviation Occurrence Report. If no deviations occurred, please specify in the box marked "No deviations occurred this reporting period".					
9 NO DEVIATION	NS OCCURRED	THIS REPO	ORTING PERIOD		
9 THE FOLLOWI	NG DEVIATIONS	OCCURR	ED THIS REPORTING PERI	OD.	
Compliance Monitoring Requirement (e.g. Permit Condition D.1.3)			Number of Deviations	Date of each Deviation	
Title Dat	rm Completed By: e/Position: te: one:				

Attach a signed certification to complete this report.

## Indiana Department of Environmental Management Office of Air Quality

Addendum to the Technical Support Document for a Significant Permit Modification to a Part 70 Operating Permit

Source Name: United States Gypsum Company

Source Location: 301 Riley Road, East Chicago, Indiana 46312

County: Lake

Operation Permit No.: T 089-7532-00333 Significant Permit Modification No.: 089-16805-00333

SIC Code: 3275

Permit Reviewer: Patrick Brennan/MES

On December 26, 2002, the Office of Air Quality (OAQ) had a notice published in the Post Tribune, in Merrillville, Indiana, and in The Times, in Munster, Indiana, stating that United States Gypsum Company had applied for a Significant Permit Modification to a Part 70 Operating Permit to construct an additional calcining kettle and the associated burners and raw material handling equipment in the stucco production process, using baghouse dust collectors for air pollution control. The notice also stated that OAQ proposed to issue a Significant Permit Modification and provided information on how the public could review the proposed Significant Permit Modification and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not this Significant Permit Modification to a Part 70 Operating Permit should be issued as proposed.

Upon further review, the OAQ has decided to make the following changes to the Significant Permit Modification to a Part 70 Operating Permit: The permit language is changed to read as follows (deleted language appears as strikeouts, new language is **bolded**):

#### Change 1:

Stucco production process items c, f, g, i and j from the Emission Units and Pollution Control Equipment Summary in Section A.2 have been changed as follows:

- (c) One (1) calcining kettle, **known as calcining kettle** #2, with a maximum throughput of 45 tons per hour, with particulate matter emissions controlled by one (1) baghouse, identified as MBH-16, and exhausting through one (1) stack, identified as M-16.
- (f) One (1) kettle feed bin, **known as kettle feed bin** #3, with a maximum capacity of 60 tons, with particulate matter emissions controlled by one (1) baghouse, identified as MBH-8, and exhausting through one (1) stack, identified as M-8.
- (g) One (1) calcining kettle, **known as calcining kettle** #3, with a maximum throughput of 30 tons per hour, with particulate matter emissions controlled by one (1) baghouse, identified as MBH-1, and exhausting through one (1) stack, identified as M-1.
- (i) One (1) hot pit, **known as hot pit** #3, with a maximum throughput of 30 tons per hour, with particulate matter emissions controlled by one (1) baghouse, identified as MBH-1, and exhausting through one (1) stack, identified as M-1.
- (j) Miscellaneous stucco handling equipment, including one (1) #4 stucco elevator, one (1) #17 screw, and one (1) #17A screw, with a maximum throughput of 70 tons per hour, with particulate matter emissions controlled by partial or total enclosure, and exhausting to associated processes or directly to the atmosphere. Some portions of the **stucco handling** conveyor system are controlled by one (1) baghouse, identified as MBH-2, and exhausting

United States Gypsum Company East Chicago, Indiana

Permit Reviewer: PTB/MES

through one (1) stack, identified as M-2.

#### Change 2:

Items c, f, g, i, j and k from the Facility Description in Section D.3 have been changed as follows:

- (c) One (1) calcining kettle, **known as calcining kettle** #2, with a maximum throughput of 45 tons per hour, with particulate matter emissions controlled by one (1) baghouse, identified as MBH-16, and exhausting through one (1) stack, identified as M-16.
- (f) One (1) kettle feed bin, **known as kettle feed bin** #3, with a maximum capacity of 60 tons, with particulate matter emissions controlled by one (1) baghouse, identified as MBH-8, and exhausting through one (1) stack, identified as M-8.
- (g) One (1) calcining kettle, **known as calcining kettle** #3, with a maximum throughput of 30 tons per hour, with particulate matter emissions controlled by one (1) baghouse, identified as MBH-1, and exhausting through one (1) stack, identified as M-1.
- (i) One (1) hot pit, **known as hot pit** #3, with a maximum throughput of 30 tons per hour, with particulate matter emissions controlled by one (1) baghouse, identified as MBH-1, and exhausting through one (1) stack, identified as M-1.
- (j) Miscellaneous stucco handling equipment, including one (1) #4 stucco elevator, one (1) #17 screw, and one (1) #17A screw, with a maximum throughput of 70 tons per hour, with particulate matter emissions controlled by partial or total enclosure, and exhausting to associated processes or directly to the atmosphere. Some portions of the **stucco handling** conveyor system are controlled by one (1) baghouse, identified as MBH-2, and exhausting through one (1) stack, identified as M-2.
- (k) Stucco storage equipment, including one (1) #49 screw, and one (1) #47 screw, with a maximum capacity of seventy (70) tons per hour, and three stucco storage bins, known as #1, #2 and #3, each with a capacity of 175 tons, with particulate emissions controlled by one (1) baghouse, identified as MBH-24, and exhausting through one (1) stack, identified as M-23.

#### Change 3:

Item f of Condition D.3.1 has been changed as follows:

#### D.3.1 Nonattainment Area Particulate Limitation [326 IAC 6-1-2]

Pursuant to 326 IAC 6-1-2 (Nonattainment Area Particulate Limitations), the PM emissions from the stucco production process shall be limited as follows:

(f) PM emissions from the natural gas-fired burners for kettle #3 exhausting to stack M-6 shall not exceed 0.03 grains per dry standard cubic foot (gr/dscf).

#### Change 4:

Item b of Condition D.3.2 has been changed as follows:

#### D.3.2 Lake County PM<sub>10</sub> Emission Requirements [326 IAC 6-1-10.1]

Pursuant to 326 IAC 6-1-10.1 (Lake County PM<sub>10</sub> Emission Requirements), the PM<sub>10</sub> emissions shall be limited as follows:

(b) The PM<sub>10</sub> emissions from **the** stucco **handling system** storage and conveying exhausting to stack M-2 shall not exceed 0.015 grains per dry standard cubic foot and 2.210 pounds per hour.

#### Change 5:

Condition D.3.4 has been changed as follows:

#### D.3.4 Emission Offset Minor NO<sub>x</sub> Limit [326 IAC 2-3]

Pursuant to CP-089-8657-00333, issued on January 8, 1998, natural gas throughput to the six (6) natural gas fired burners for calcining kettle #2 shall not exceed 338.4 million cubic feet per consecutive twelve (12) month period, including natural gas throughput to the wet and dry end seal natural gas burners, and the gauging water heater, which are found in Section D.4.

Compliance with this limits will assure that the  $NO_X$  emissions from the facilities permitted under CP-089-8657-00333, issued on January 8, 1998 shall remain less than twenty-five (25) tons per year and that the requirements of 326 IAC 2-3 **(Emission Offset)** are not applicable.

#### Change 6:

Condition D.3.15 has been changed as follows:

#### D.3.15 Reporting Requirements

A quarterly summary of the information to document compliance with Condition 3.4 shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting form located at the end of this permit, or **an** their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

## Indiana Department of Environmental Management Office of Air Quality

### Technical Support Document (TSD) for a Part 70 Significant Source and Significant Permit Modifications

#### **Source Background and Description**

Source Name: United States Gypsum Company

Source Location: 301 Riley Road, East Chicago, Indiana 46312

County: Lake SIC Code: 3275

Operation Permit No.:

Operation Permit Issuance Date:

Significant Source Modification No.:

Significant Permit Modification No.:

Permit Reviewer:

T 089-7532-00333

July 6, 1999

089-16064-00333

089-16805-00333

Patrick Brennan/MES

The Office of Air Quality (OAQ) has reviewed a modification application from the United States Gypsum Company relating to the construction and modification of the stucco production process. This process is currently permitted in Section D.3 of the Part 70 permit for the source. The modified process consists of the following emission units and pollution control devices. The deleted equipment appears as strikeouts, and new equipment is **bolded.** 

#### Section D.3

A stucco production process, consisting of the following equipment:

- (a) One (1) Two (2) kettle feed bins, known as kettle feed bin #1 and kettle feed bin #2, each with a maximum capacity of 60 tons, with particulate matter emissions controlled by one (1) two (2) baghouses, identified as MBH-20 and MBH-21, MBH-8, and exhausting through one (1) stack, identified as M-20 M-8.
- (b) One (1) calcining kettle, known as calcining kettle #1, with a maximum throughput of thirty (30) tons per hour, with particulate emissions controlled by one (1) baghouse, identified as MBH-22, and exhausting through one (1) stack, identified as M-22.
- (c) (b) One (1) calcining kettle #2, with a maximum throughput of 45 tons per hour, with particulate matter emissions controlled by one (1) baghouse, identified as MBH-16, and exhausting through one (1) stack, identified as M-16.
- (d) Three (3) natural gas-fired burners for calcining kettle #1, each with a heat input capacity of 5 MMBtu per hour, and exhausting through one (1) stack, identified as M-21.
- (e) (c) Six (6) natural gas-fired burners for the calcining kettle #2, each with a heat input capacity of 5 MMBtu per hour, and exhausting through one (1) stack, identified as M-14.
- (f) (d) One (1) kettle feed bin #3, with a maximum capacity of 60 tons, with particulate matter

U. S. Gypsum Company
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emissions controlled by one (1) baghouse, identified as MBH-8, and exhausting through one (1) stack, identified as M-8.

- (g) (e) One (1) calcining kettle #3, with a maximum throughput of 30 tons per hour, with particulate matter emissions controlled by one (1) baghouse, identified as MBH-1, and exhausting through one (1) stack, identified as M-1.
- (h) (f) One (1) natural-gas fired burner for the calcining kettle #3, with a heat input capacity of 15 MMBtu per hour, and exhausting through one (1) stack, identified as M-6.
- (i) (g) One (1) hot pit #3, with a maximum throughput of 30 tons per hour, with particulate matter emissions controlled by one (1) baghouse, identified as MBH-1, and exhausting through one (1) stack, identified as M-1.
- (j) (h) Miscellaneous stucco handling equipment, including one (1) #4 stucco elevator, one (1) #17 screw, and one (1) #17A screw, A conveying system, with a maximum throughput of 70 tons per hour, with particulate matter emissions controlled by partial or total enclosure, and exhausting to associated processes or directly to the atmosphere. Some portions of the conveyor system are controlled by one (1) baghouse, identified as MBH-2, and exhausting through one (1) stack, identified as M-2.
- (k) Stucco storage equipment, including one (1) #49 screw, and one (1) #47 screw, with a maximum capacity of seventy (70) tons per hour, and three stucco storage bins, known as #1, #2 and #3, each with a capacity of 175 tons, with particulate emissions controlled by one (1) baghouse, identified as MBH-24, and exhausting through one (1) stack, identified as M-23.
- (I) Stucco storage equipment, including one (1) #1 elevator and one (1) #27 screw, with a maximum capacity of seventy (70) tons per hour, and three (3) stucco storage bins, known as #4, #5 and #6, each with a capacity of 175 tons, with particulate emissions controlled by one (1) baghouse, identified as MBH-23, and exhausting through one (1) stack, identified as M-23.
- (m) (i) One (1) stucco storage bin, with a maximum capacity of 50 tons, with particulate matter controlled by one (1) baghouse, identified as MBH-2, and exhausting through one (1) stack, identified as M-2.

#### **History**

On September 10, 2002, U.S. Gypsum Company submitted an application to IDEM, OAQ, requesting to add one (1) additional calcining kettle and associated burners, feed bins and storage facilities to the stucco production process their existing plant. U.S. Gypsum Company was issued a Part 70 permit on July 6, 1999. At the time that the new calcining kettle, known as #1 is constructed, calcining kettle #3 and its associated burners and feed bin will be removed from service and idled.

The source has stated that the idled equipment will remain in place, with the intention that at some point in the future this equipment will be rebuilt and reactivated. At the time that the calcining kettle #3 equipment is rebuilt, the source will make the appropriate application under the IDEM new source review process.

mit Reviewer: PTB/MES Significant Permit Modification: 089-16805-00333

#### **Enforcement Issue**

There are no enforcement actions pending.

#### **Stack Summary**

Stack ID	Operation	Height (feet)	Diameter (feet)	Flow Rate (acfm)	Temperature (EF)
M-20	Baghouse	55.5	0.5	320	170
M-21	Baghouse	132.5	2.5	6,500	415
M-22	Baghouse	46.5	1.5	10,000	280
M-23	Baghouse	95.5	0.5	3,300	200

#### Recommendation

The staff recommends to the Commissioner that the Part 70 Significant Source Modification and Significant Permit modification be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An application for the purposes of this review was received on September 10, 2002. Additional information was received on October 17, 2002.

#### **Emission Calculations**

See pages 1-3 of 3 of Appendix A of this document for detailed emissions calculations.

#### **Potential To Emit of Modification**

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as "the maximum capacity of a stationary source to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U.S. EPA."

This table reflects the PTE before controls. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit.

Pollutant	Potential To Emit (tons/year)
PM	5,113
PM <sub>10</sub>	5,113
SO <sub>2</sub>	0.039
VOC	0.361
СО	5.52
NO <sub>x</sub>	6.57

HAPs	Potential To Emit (tons/year)
Benzene	0.0001
Dichlorobenzene	0.0008
Formaldehyde	0.005
Hexane	0.118
Toluene	0.0002
Lead	0.00003
Cadmium	0.00007
Chromium	0.00009
Manganese	0.00003
Nickel	0.0001
TOTAL	0.124

#### **Justification for Modification**

The Part 70 Operating Permit is being modified through a Part 70 Significant Source Modification. This modification is being performed pursuant to 326 IAC 2-7-10.5(f)(4) because the potential to emit of  $PM_{10}$  exceeds twenty-five (25) tons per year. The proposed operating conditions shall be incorporated into the Part 70 Operating Permit as a Significant Permit Modification (SPM 089-16805-00333) in accordance with 326 IAC 2-7-12(d)(1). The Significant Permit Modification will give the source approval to operate the proposed emission units.

#### **County Attainment Status**

The source is located in Lake County.

Pollutant	Status
PM <sub>10</sub>	nonattainment
SO <sub>2</sub>	nonattainment
NO <sub>2</sub>	attainment
Ozone	severe nonattainment
СО	attainment
Lead	attainment

- (a) Volatile organic compounds (VOC) are precursors for the formation of ozone. Lake County has been designated as nonattainment for ozone. Therefore, VOC emissions were reviewed pursuant to the requirements for Emission Offset, 326 IAC 2-3.
- (b) The City of East Chicago in Lake County has been classified as nonattainment for PM<sub>10</sub>. Therefore, these emissions were reviewed pursuant to the requirements for Emission Offset, 326 IAC 2-3.
- (c) Lake County has been classified as attainment or unclassifiable for all remaining criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 and 40 CFR 52.21.
- (d) Fugitive Emissions
  Since this type of operation is not one of the 28 listed source categories under 326 IAC 2-2 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive PM emissions are not counted toward determination of PSD and Emission Offset applicability.

#### **Source Status**

Existing Source PSD or Emission Offset Definition (emissions after controls, based upon 8760 hours of operation per year at rated capacity and/or as otherwise limited):

Pollutant	Emissions (tons/year)
PM	233
PM <sub>10</sub>	233
SO <sub>2</sub>	20.6
VOC	96.2
СО	1,202
NO <sub>x</sub>	4,807

(a) This existing source is a major stationary source because an attainment regulated pollutant is emitted at a rate of two hundred fifty (250) tons per year or more, and it is not one of the 28 listed source categories.

U. S. Gypsum Company
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(b) This existing source is a major stationary source because a nonattainment regulated pollutant is emitted at a rate of one hundred (100) tons per year or more, and it is not one of the 28 listed source categories.

(c) These emissions are based upon 1999 emissions data submitted to the Office of Air Quality.

#### Potential to Emit of Modification After Issuance

The table below summarizes the potential to emit, reflecting all limits, of the significant emission units after controls. The control equipment is considered federally enforceable only after issuance of this Part 70 source modification.

Pollutant	PM (tons/yr)	PM <sub>10</sub> (tons/yr)	SO <sub>2</sub> (tons/yr)	VOC (tons/yr)	CO (tons/yr)	NO <sub>X</sub> (tons/yr)
Proposed Modification Baghouses Natural Gas Combustion	5.11 0.125	5.11 0.499	- 0.039	- 0.361	- 5.52	- 6.57
Contemporaneous Increases (From SPM 089-11767)	1.60	4.30	0.319	3.59	57.1	19.3
Total Emissions	6.84	9.91	0.358	3.95	62.6	25.9
Offset Significant Level	25	15	40	40	100	40

- (a) This modification to an existing major stationary source is not major because the emissions increase is less than the Emission Offset significant levels. Therefore, pursuant to 326 IAC 2-3, the Emission Offset requirements do not apply.
- (b) The contemporaneous increases were for equipment originally permitted under CP 089-8657-00333, issued on January 8, 1998. The netting calculations from CP 089-8657-00333 were subsequently revised in SPM 089-11767-00333, issued on November 13, 2002, to reflect small changes in the as built configuration of this equipment. The  $NO_\chi$  emissions for the equipment permitted in CP 089-8657-00333 were limited by a throughput limitation on natural gas usage for the several of the natural gas combustion facilities at the source. None of the limited facilities are affected by this proposed modification.

#### **Federal Rule Applicability**

- (a) This significant modification does involve a pollutant-specific emissions unit:
  - (1) with the potential to emit before controls equal to or greater than one hundred (100) tons per year, and
  - (2) that is subject to an emission limit and has a control device that is necessary to meet that limit.

Therefore, the requirements of 40 CFR Part 64, Compliance Assurance Monitoring, are applicable. The source will meet the requirements of this rule through baghouse monitoring which includes once per shift visible emissions monitoring, once per shift parametric monitoring of the pressure drops across the baghouses, and baghouse inspections.

(b) Calcining kettle #1 is subject to the New Source Performance Standard, 326 IAC 12, (40 CFR Part 60.730 through 60.737, Subpart UUU (Standards of Performance for Calciners

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and Dryers in the Mineral Industries). This rule requires that no emissions shall be discharged into the atmosphere from any affected facility that:

- (1) Contain particulate matter in excess of 0.092 grams per dry standard cubic meter (g/dscm) [0.040 grain per dry standard cubic foot (gr/dscf)] for calciners and for calciners and dryers installed in series and in excess of 0.057 g/dscm for dryers; and
- (2) Exhibit greater than 10 percent opacity, unless emissions are discharged from an affected facility using a wet scrubbing control device.

Because the facility is not equipped with a wet scrubbing control device, calcining kettle #1 shall not emit particulate matter in excess of 0.092 grams per dry standard cubic meter (g/dscm) or exhibit greater than 10 percent opacity.

- (c) Kettle feed bins #1 and #2, as well as all stucco storage and handling equipment are subject to the New Source Performance Standard 326 IAC 12, 40 CFR Part 60.670 through 60.676, Subpart OOO (Standards of Performance for Nonmetallic Mineral Processing Plants). This rule requires that:
  - (1) No emissions shall be discharged into the atmosphere from any point on belt conveyors or from any other affected facility stack emissions which:
    - (a) Contain particulate matter in excess of 0.05 grams per dry standard cubic meter (g/dscm), and
    - (b) Exhibit greater than 7 percent opacity, unless emissions are discharged from an affected facility using a wet scrubbing control device, and
  - (2) On and after the sixtieth day after achieving maximum production rate at which the affected facility will be operated, but no later than 180 days after initial startup, fugitive emissions from any point on belt conveyors or from any other affected facility shall not exceed 10 percent opacity.
- (d) There are still no National Emission Standards for Hazardous Air Pollutants (NESHAPs) (326 IAC 14, 326 IAC 20, 40 CFR 61 and 40 CFR Part 63) applicable to this proposed modification.
- (e) The requirements of Section 112(j) of the Clean Air Act (40 CFR Part 63.50 through 63.56) are not applicable to this source because; (1) the source is not a major source of hazardous air pollutant (HAP) emissions (i.e., the source does not have the potential to emit 10 tons per year or greater of a single HAP or 25 tons per year or greater of a combination of HAPs), and (2) the source does not include one or more units that belong to one or more source categories affected by the Section 112(j) MACT Hammer date of May 15, 2002.

#### State Rule Applicability - Individual Facilities

326 IAC 2-2 (Prevention of Significant Deterioration (PSD))

The existing source is a major PSD source. The potential to emit PM and  $PM_{10}$  form this modification, after controls, is less than the PSD significance levels. The net emissions of the remaining criteria pollutants from the proposed modification, after considering the contemporaneous increases from CP 089-8657-00333, issued on January 8, 1998, and the contemporaneous decreases from equipment being removed from service as a result of this modification, are less than

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the PSD significance levels.

Therefore, this modification is a minor modification to a major source, and pursuant to 326 IAC 2-2, and 40 CFR 52.21, the PSD requirements do not apply.

#### 326 IAC 6-1 (Particulate Limitations)

- (a) Because the proposed modification is located in Lake County, 326 IAC 6-1-2 (Nonattainment Area Particulate Limitations) is applicable. Pursuant to 326 IAC 6-1-2 (a), particulate emissions from kettle feed bin #1, calcining kettle #1, the three (3) natural gasfired burners for calcining kettle #1, and the stucco handling and storage equipment, shall not exceed 0.03 grains per dry standard cubic foot.
  - The grain loadings submitted by the applicant, shown on page 1 of 3 of Appendix A to this document, verify that these facilities will be in compliance with this rule.
- (b) Because the three (3) natural gas-fired burners for calcining kettle #1 are not fuel combustion steam generators, 326 IAC 6-1-2 (b) is not applicable.

#### 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)

Pursuant to 326 IAC 6-3-1(b)(1), if a limit is established by 326 IAC 6-1, then the limitation contained in 326 IAC 6-3 shall not apply. Therefore, since the kettle feed bin #1, calcining kettle #1, the three (3) natural gas-fired burners for calcining kettle #1, and the stucco handling and storage equipment are subject to the requirements of 326 IAC 6-1-2 (a), the requirements of 326 IAC 6-3-2 are not applicable.

#### **Compliance Requirements**

Permits issued under 326 IAC 2-7 are required to ensure that sources can demonstrate compliance with applicable state and federal rules on a more or less continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a more or less continuous demonstration. When this occurs IDEM, OAQ, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-7-5. As a result, compliance requirements are divided into two sections: Compliance Determination Requirements and Compliance Monitoring Requirements.

Compliance Determination Requirements in Section D of the permit are those conditions that are found more or less directly within state and federal rules and the violation of which serves as grounds for enforcement action. If these conditions are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also Section D of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source's failure to take the appropriate corrective actions within a specific time period.

The kettle feed bins, calcining kettle and stucco storage equipment have applicable compliance monitoring conditions as specified below:

(a) Visible emissions notations of the baghouse stack exhausts M-20, M-22 and M-23 shall be performed once per shift during normal daylight operations when exhausting directly to the atmosphere. A trained employee will record whether emissions are normal or abnormal. For processes operated continuously "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not

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counting startup or shut down time. In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions. A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed.

- (b) The Permittee shall record the total static pressure drop across the baghouses identified as MBH-20, MBH-21, MBH-22, MBH-23 and MBH-24, controlling the kettle feed bins, calcining kettle and stucco storage equipment at least once per shift when the kettle feed bins, calcining kettle and stucco storage equipment are in operation when venting directly to the atmosphere. Unless operated under conditions for which the Compliance Response Plan specifies otherwise, the pressure drop across these baghouses shall be maintained within the range of 0.5 to 6.0 inches of water or a range established during the latest stack test. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when the pressure reading is outside of the above mentioned range for any one reading.
- (c) An inspection shall be performed within the last month of each calender quarter of all bags controlling the kettle feed bins, calcining kettle and stucco storage equipment. All defective bags shall be replaced.
- (d) In the event that bag failure has been observed:
  - (1) For multi-compartment units, the affected compartments will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if there are no visible emissions or if the event qualifies as an emergency and the Permittee satisfies the emergency provisions of this permit (Section B- Emergency Provisions). Within eight (8) business hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) business hours of discovery of the failure and shall include a timetable for completion.
  - (2) For single compartment baghouses, failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B Emergency Provisions).

These monitoring conditions are necessary because the baghouses for kettle feed bins, calcining kettle and stucco storage equipment must operate properly to ensure compliance with 326 IAC 6-1-2 (Nonattainment Area Particulate Limitations), 326 IAC 2-2 (Prevention of Significant Deterioration) and 326 IAC 2-7 (Part 70).

#### **Proposed Changes**

The permit language is changed to read as follows (deleted language appears as strikeouts, new language appears in **bold**):

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#### **SECTION D.3**

#### **FACILITY OPERATION CONDITIONS**

Facility Description [326 IAC 2-7-5(15)]

A stucco production process, consisting of the following equipment::

- (a) One (1) Two (2) kettle feed bins, known as kettle feed bin #1 and kettle feed bin #2, each with a maximum capacity of 60 tons, with particulate matter emissions controlled by one (1) two (2) baghouses, identified as MBH-20 and MBH-21, MBH-8, and exhausting through one (1) stack, identified as M-20 M-8.
- (b) One (1) calcining kettle, known as calcining kettle #1, with a maximum throughput of thirty (30) tons per hour, with particulate emissions controlled by one (1) baghouse, identified as MBH-22, and exhausting through one (1) stack, identified as M-22.
- (c) (b) One (1) calcining kettle #2, with a maximum throughput of 45 tons per hour, with particulate matter emissions controlled by one (1) baghouse, identified as MBH-16, and exhausting through one (1) stack, identified as M-16.
- (d) Three (3) natural gas-fired burners for calcining kettle #1, each with a heat input capacity of 5 MMBtu per hour, and exhausting through one (1) stack, identified as M-21.
- (e) (e) Six (6) natural gas-fired burners for the calcining kettle #2, each with a heat input capacity of 5 MMBtu per hour, and exhausting through one (1) stack, identified as M-14.
- (f) (d) One (1) kettle feed bin #3, with a maximum capacity of 60 tons, with particulate matter emissions controlled by one (1) baghouse, identified as MBH-8, and exhausting through one (1) stack, identified as M-8.
- (g) (e) One (1) calcining kettle #3, with a maximum throughput of 30 tons per hour, with particulate matter emissions controlled by one (1) baghouse, identified as MBH-1, and exhausting through one (1) stack, identified as M-1.
- (h) (f) One (1) natural-gas fired burner for the calcining kettle #3, with a heat input capacity of 15 MMBtu per hour, and exhausting through one (1) stack, identified as M-6.
- (i) (g) One (1) hot pit #3, with a maximum throughput of 30 tons per hour, with particulate matter emissions controlled by one (1) baghouse, identified as MBH-1, and exhausting through one (1) stack, identified as M-1.
- (j) (h) Miscellaneous stucco handling equipment, including one (1) #4 stucco elevator, one (1) #17 screw, and one (1) #17A screw, A conveying system, with a maximum throughput of 70 tons per hour, with particulate matter emissions controlled by partial or total enclosure, and exhausting to associated processes or directly to the atmosphere. Some portions of the conveyor system are controlled by one (1) baghouse, identified as MBH-2, and exhausting through one (1) stack, identified as M-2.
- (k) Stucco storage equipment, including one (1) #49 screw, and one (1) #47 screw, with a maximum capacity of seventy (70) tons per hour, and three stucco storage bins, known as #1, #2 and #3, each with a capacity of 175 tons, with particulate emissions controlled by one (1) baghouse, identified as MBH-24, and exhausting through one (1) stack, identified as M-23.
- (I) Stucco storage equipment, including one (1) #1 elevator and one (1) #27 screw, with a maximum capacity of seventy (70) tons per hour, and three (3) stucco storage bins, known as #4, #5 and #6, each with a capacity of 175 tons, with particulate emissions controlled by one (1) baghouse, identified as MBH-23, and exhausting through one (1) stack, identified as M-23.
- (m) (i) One (1) stucco storage bin, with a maximum capacity of 50 tons, with particulate matter controlled by one (1) baghouse, identified as MBH-2, and exhausting through one (1) stack, identified as M-2.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

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#### Emission Limitations and Standards [326 IAC 2-7-5(1)]

#### Nonattainment Area Particulate Limitation [326 IAC 6-1-2]

Pursuant to 326 IAC 6-1-2 (Nonattainment Area Particulate Limitations), the PM emissions from the stucco production process shall be limited as follows:

- PM emissions from kettle feed bins #1, #2 and #3 exhausting to stacks M-8 and M-20 shall (a) not exceed 0.03 grains per dry standard cubic foot (gr/dscf).
- (b) PM emissions from calcining kettle #1 exhausting to stack M-22 shall not exceed 0.03 grains per dry standard cubic foot (gr/dscf).
- PM emissions from calcining kettle #2 exhausting to stack M-16 shall not exceed 0.03 grains per dry standard cubic foot (gr/dscf).
- (d) (e) PM emissions from the natural gas-fired burners for kettle #1 exhausting to stack M-21 shall not exceed 0.03 grains per dry standard cubic foot (gr/dscf).
- PM emissions from the natural gas-fired burners for kettle #2 exhausting to stack M-14 shall not exceed 0.03 grains per dry standard cubic foot (gr/dscf).
- (f) (d) PM emissions from the natural gas-fired burners for kettle #3 exhausting to stack M-6 shall not exceed 0.03 grains per dry standard cubic foot (gr/dscf).
- (g) (e) PM emissions from hot pit #3 exhausting to stack M-1 shall not exceed 0.03 grains per dry standard cubic foot (gr/dscf).
- PM emissions from the stucco storage bin exhausting to stack M-2 shall not exceed 0.03 (h) <del>(f)</del> grains per dry standard cubic foot (gr/dscf).
- (i) PM emissions from the stucco storage bins #1 through #6, exhausting to stack M-23, shall not exceed 0.03 grains per dry standard cubic foot (gr/dscf).

#### Lake County PM<sub>10</sub> Emission Requirements [326 IAC 6-1-10.1]

Pursuant to 326 IAC 6-1-10.1 (Lake County PM<sub>10</sub> Emission Requirements), the PM<sub>10</sub> emissions shall be limited as follows:

- The PM<sub>10</sub> emissions from kettle #3 exhausting to stack M-1 shall not exceed 0.012 grains per (a) dry standard cubic foot and 3.210 pounds per hour.
- (b) The PM<sub>10</sub> emissions from stucco storage and conveying exhausting to stack M-2 shall not exceed 0.015 grains per dry standard cubic foot and 2.210 pounds per hour.

#### Emission Offset Minor PM Limit [326 IAC 2-3]

Pursuant to CP 089-8657-00333, issued on January 8, 1998, the PM emissions shall be limited as follows:

- PM emissions from kettle #2 exhausting to stack M-16 shall not exceed 0.010 grains per dry (a) standard cubic foot.
- (b) PM emissions from kettle feed bins #1, #2 and #3 exhausting to stacks M-8 and M-20 shall not exceed 0.008 grains per dry standard cubic foot.

Compliance with these limits make 326 IAC 2-3 (Emission Offset) not applicable. Compliance with these limits also will satisfy the requirements of 326 IAC 6-1-2 (Nonattainment Area Particulate

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Limitations) for these facilities.

#### D.3.4 Emission Offset Minor NO<sub>x</sub> Limit [326 IAC 2-3]

Pursuant to CP-089-8657-00333, issued on January 8, 1998, natural gas throughput to the six (6) natural gas fired burners for calcining kettle #2 shall not exceed 338.4 million cubic feet per consecutive twelve (12) month period, including natural gas throughput to the wet and dry end seal natural gas burners, and the gauging water heater, which are found in Section D.4.

Compliance with this limits will assure that the  $NO_X$  emissions from the facilities permitted under CP-089-8657-00333, issued on January 8, 1998 shall remain less than twenty-five (25) tons per year and that the requirements of 326 IAC 2-3 are not applicable.

#### D.3.5 New Source Performance Standard [326 IAC 12] [40 CFR 60, Subpart UUU]

Pursuant to 40 CFR 60, Subpart UUU (Calciners and Dryers in Mineral Industries), PM emissions from the **kettle #1 exhausting to stack M-22 and** kettle #2 exhausting to stack M-16, shall not exceed 0.092 grams per dry standard cubic meter (g/dscm) and ten percent (10%) opacity.

#### D.3.6 New Source Performance Standard [326 IAC 12] [40 CFR 60, Subpart OOO]

Pursuant to 40 CFR 60, Subpart OOO (Standards of Performance for Nonmetallic Mineral Processing Plants), PM emissions from kettle feed bins #1 and #2, exhausting through stack M-20, as well as all stucco storage and handling equipment exhausting through stacks M-2 and M-23, shall not exceed 0.05 grams per dry standard cubic meter (g/dscm) and seven percent (7%) opacity.

#### **D.3.7** D.3.6 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for these facilities and their control devices.

#### **Compliance Determination Requirements**

#### **D.3.8** D.3.7 Testing Requirements [326 IAC 2-7-6(1),(6)]

- (a) Pursuant to CP 089-8657-00333, issued on January 8, 1998, the Permittee shall perform compliance testing for PM from kettle #2 exhausting to stack M-16 and kettle feed bins exhausting to stack M-8 within 60 days after achieving maximum production rate, but no later than 180 days after initial start-up. The tests shall be performed in accordance with Section C Performance Testing and 40 CFR 60.736.
- (a) To demonstrate compliance with 40 CFR 60, Subpart UUU (Calciners and Dryers in Mineral Industries), and Condition D.3.5, the Permittee shall perform compliance testing for PM and opacity from calcining kettle #1 exhausting through stack M-22, and calcining kettle #2, exhausting through stack M-16, within 60 days after achieving maximum production rate, but no later than 180 days after initial start-up. The tests shall be performed in accordance with Section C Performance Testing and 40 CFR 60.736.
- (b) To demonstrate compliance with 40 CFR 60, Subpart OOO (Standards of Performance for Nonmetallic Mineral Processing Plants), and Condition D.3.6, the Permittee shall perform compliance testing for PM and opacity from kettle feed bins #1 and #2, exhausting through stack M-20, and the stucco storage and handling equipment exhausting through stacks M-2 and M-23, within 60 days after achieving maximum production rate, but no later than 180 days after initial start-up. The tests shall be performed in accordance with Section C Performance Testing and 40 CFR 60.675.

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The Permittee is not required to test the remaining stucco production facilities by this permit. However, IDEM may require compliance testing at any specific time when necessary to determine if the facility is in compliance. If testing is required by IDEM, compliance with the limits specified in Conditions D.3.1 and D.3.2 shall be determined by a performance test conducted in accordance with Section C - Performance Testing.

#### D.3.9 D.3.8 Particulate Matter (PM)

Pursuant to OP 45-07-93-0508, issued on December 19, 1989, and CP-089-8657-00333, issued on January 8, 1998, The baghouses for PM control shall be in operation at all times when the associated facilities are in operation.

#### Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)] [40 CFR Part 64]

#### D.3.10 D.3.9 Visible Emissions Notations

- Visible emission notations of the stack exhausts M-1, M-2, M-8, M-16, M-20, M-22 and M-23 (a) M-8 shall be performed once per shift during normal daylight operations when exhausting directly to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- In the case of batch or discontinuous operations, readings shall be taken during that part of (c) the operation that would normally be expected to cause the greatest emissions.
- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (e) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed.

#### **D.3.11** D.3.10 Parametric Monitoring

The Permittee shall record the total static pressure drop across the baghouses used in conjunction with the stucco production process, at least once per shift when the associated facilities are in operation when venting directly to the atmosphere.

- (a) Unless operated under conditions for which the Compliance Response Plan specifies otherwise, the pressure drop across baghouses MBH-1, MBH-2, and MBH-16, MBH-20, MBH-21, MBH-22, MBH-23 and MBH-24 shall be maintained within the range of 0.5 and 6.0 inches of water, or a range established during the latest stack test.
- (b) Unless operated under conditions for which the Compliance Response Plan specifies otherwise, the pressure drop across baghouse MBH-8 shall be maintained within the range of 2.0 and 8.0 inches of water, or a range established during the latest stack test.

The Compliance Response Plan for these units shall contain troubleshooting contingency and response steps for when the pressure reading is outside of the above mentioned range for any one reading.

The instrument used for determining the pressure shall comply with Section C - Pressure Gauge Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.

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#### **D.3.12** D.3.11 Baghouse Inspections

An inspection shall be performed each calender quarter of all bags controlling the stucco production process. All defective bags shall be replaced.

#### D.3.13 D.3.12 Broken or Failed Bag Detection

In the event that bag failure has been observed.

- (a) The affected compartments will be shut down immediately until the failed units have been repaired or replaced. Within eight (8) hours of the determination of failure, response steps according to the timetable described in the Compliance Response Plan shall be initiated. For any failure with corresponding response steps and timetable not described in the Compliance Response Plan, response steps shall be devised within eight (8) hours of discovery of the failure and shall include a timetable for completion. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B Emergency Provisions).
- (b) For single compartment baghouses, failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B Emergency Provisions).

#### Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

#### D.3.14 D.3.13 Record Keeping Requirements

- (a) To document compliance with Condition D.3.4, the Permittee shall maintain records of natural gas throughput to the six (6) natural gas fired burners for calcining kettle #2.
- (b) To document compliance with Condition **D.3.10** <del>D.3.9</del>, the Permittee shall maintain records of visible emission notations of the stack exhausts M-1, M-2, M-8, M-16, **M-20**, **M-22** and **M-23** <del>M-8</del> once per shift.
- (c) To document compliance with Condition **D.3.11** <del>D.3.10</del>, the Permittee shall maintain the following:
  - (1) Records of the following operational parameters taken once per shift during normal operation when venting directly to the atmosphere:
    - (A) Inlet and outlet differential static pressure; and
    - (B) Cleaning cycle: frequency and differential pressure.
  - (2) Documentation of all response steps implemented, per event.
  - (3) Operation and preventive maintenance logs, including work purchases orders, shall be maintained.
  - (4) Quality Assurance/Quality Control (QA/QC) procedures.
  - (5) Operator standard operating procedures (SOP).
  - (6) Manufacturer's specifications or its equivalent.
  - (7) Equipment "troubleshooting" contingency plan.

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- (8) Documentation of the dates vents are redirected.
- (d) To document compliance with Condition **D.3.12** <del>D.3.11</del>, the Permittee shall maintain records of the results of the inspections required under Condition **D.3.12** <del>D.3.11.</del>
- (e) All records shall be maintained in accordance with Section C General Record Keeping Requirements, of this permit.

#### D.3.15 D.3.14 Reporting Requirements

A quarterly summary of the information to document compliance with Condition 3.4 shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting form located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

#### Conclusion

The construction and operation of this proposed modification shall be subject to the conditions of the attached proposed Part 70 Significant Source Modification No. 089-16064-00333 and Significant Permit Modification No. 089-16805-00333.

### Appendix A: Emission Calculations Baghouse Operations

Company Name: U. S. Gypsum Company

Address City IN Zip: 301 Riley Road, East Chicago, Indiana 46312

SSM: 089-16064 SPM: 089-16085 Plt ID: 089-00333

Reviewer: Patrick Brennan/MES
Date: September 10, 2002

Unit ID	Control	Grain Loading per Actual	Gas or Air	Emission Rate	Emission Rate	<b>Emission Rate</b>	Emission Rate
	Efficiency	Cubic foot of Outlet Air	Flow Rate	before Controls	before Controls	after Controls	after Controls
	(%)	(grains/cub. ft.)	(acfm.)	(lb/hr)	(tons/yr)	(lb/hr)	(tons/yr)
Kettle Feed #1 (MBH-20)	99.9%	0.0100	160	13.71	60.1	0.0137	0.060
Kettle Feed #2 (MBH-21)	99.9%	0.0100	160	13.71	60.1	0.0137	0.060
Kettle #1 (MBH-22)	99.9%	0.0100	10000	857.14	3754.3	0.8571	3.754
Stucco Stor 1,2,3 (MBH-24)	99.9%	0.0100	1500	128.57	563.1	0.1286	0.563
Stucco Stor 4,5,6 (MBH-24)	99.9%	0.0100	1800	154.29	675.8	0.1543	0.676
Total				1167.43	5113.34	1.17	5.11

#### Methodology

Emission Rate in lbs/hr (after controls) = (grains/cub. ft.) (sq. ft.) ((cub. ft./min.)/sq. ft.) (60 min/hr) (lb/7000 grains) Emission Rate in tons/yr = (lbs/hr) (8760 hr/yr) (ton/2000 lb)

Emission Rate in lbs/hr (before controls) = Emission Rate (after controls): (lbs/hr)/(1-control efficiency)

Emission Rate in tons/yr = (lbs/hr) (8760 hr/yr) (ton/2000 lb)

## Appendix A: Emissions Calculations Natural Gas Combustion Only MM BTU/HR <100

Company Name: U. S. Gypsum Company

Address City IN Zip: 301 Riley Road, East Chicago, Indiana 46312

SSM: 089-16064 SPM: 089-16805 Plt ID: 089-00333

Reviewer: Patrick Brennan/MES
Date: September 10, 2002

Heat Input Capacity Potential Throughput

MMBtu/hr MMCF/yr

15.0000 131.40

#### Pollutant

Emission Factor in lb/MMCF	PM*	PM10*	SO2	NOx	VOC	CO
	1.9	7.6	0.6	100.0	5.5	84.0
Potential Emission in tons/yr	0.125	0.499	0.0394	6.570	0.361	5.519

<sup>\*</sup>PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.

#### Methodology

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu

Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 3/98)

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

Note: Check the applicable rules and test methods for PM and PM10 when using the above emission factors to confirm that the correct factor is used (i.e., condensable included/not included).

See page 2 for HAPs emissions calculations.

<sup>\*\*</sup>Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

#### Page 3 of 3 TSD App A

# Appendix A: Emissions Calculations Natural Gas Combustion Only MM BTU/HR <100 HAPs Emissions

Company Name: U. S. Gypsum Company

Address City IN Zip: 301 Riley Road, East Chicago, Indiana 46312

SSM: 089-16064 SPM: 089-16805 Plt ID: 089-00333

Reviewer: Patrick Brennan/MES
Date: September 10, 2002

#### HAPs - Organics

Emission Factor in lb/MMcf	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene
	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03
Potential Emission in tons/yr	1.38E-04	7.88E-05	4.93E-03	1.18E-01	2.23E-04

#### HAPs - Metals

Emission Factor in lb/MMcf	Lead	Cadmium	Chromium	Manganese	Nickel	Total
	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03	HAPs
Potential Emission in tons/yr	3.29E-05	7.23E-05	9.20E-05	2.50E-05	1.38E-04	0.124

Methodology is the same as page 1.

The five highest organic and metal HAPs emission factors are provided above.

Additional HAPs emission factors are available in AP-42, Chapter 1.4.